United States
Department of
Agriculture

Natural
Resources
Conservation
Service

In cooperation with
Alabama Agricultural
Experiment Station and
Alabama Soil and Water
Conservation Committee

Soil Survey of Coosa County, Alabama

How To Use This Soil Survey

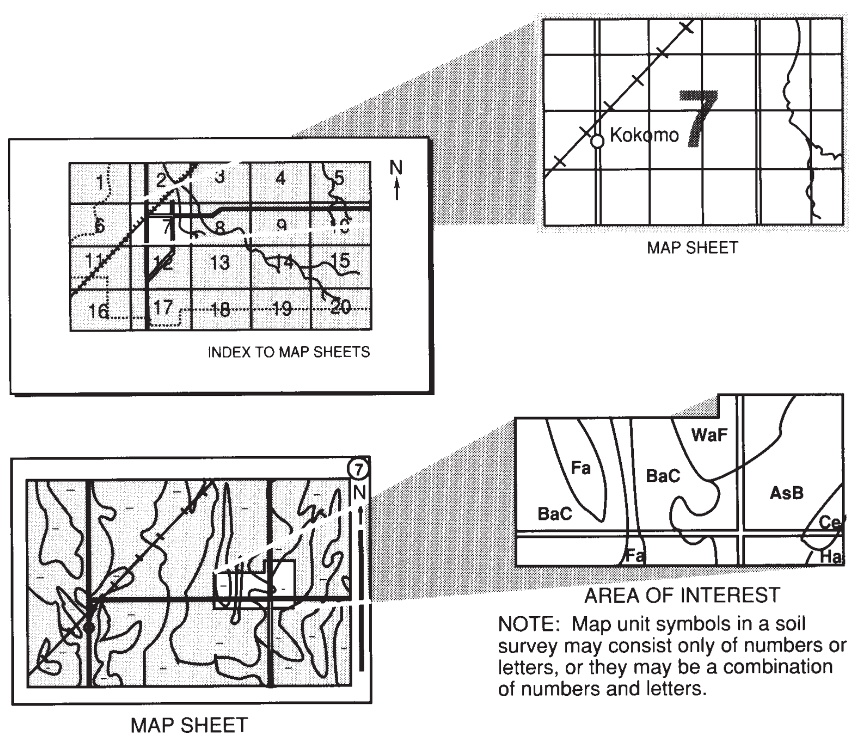
Detailed Soil Maps

The detailed soil maps can be useful in planning the use and management of small areas.

To find information about your area of interest, locate that area on the **Index to Map Sheets**. Note the number of the map sheet and turn to that sheet.

Locate your area of interest on the map sheet. Note the map unit symbols that are in that area. Turn to the **Contents**, which lists the map units by symbol and name and shows the page where each map unit is described.

The **Contents** shows which table has data on a specific land use for each detailed soil map unit. Also see the **Contents** for sections of this publication that may address your specific needs.



National Cooperative Soil Survey

This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (formerly the Soil Conservation Service) has leadership for the Federal part of the National Cooperative Soil Survey. This survey was made cooperatively by the Natural Resources Conservation Service, the Alabama Agricultural Experiment Station, the Alabama Cooperative Extension System, the Alabama Soil And Water Conservation Committee, and the Alabama Department of Agriculture and Industries. The survey is part of the technical assistance furnished to the Coosa County Soil and Water Conservation District.

Major fieldwork for this soil survey was completed in 2005. Soil names and descriptions were approved in 2006. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 2005. The most current official data are available on the Internet at http://websoilsurvey.nrcs.usda.gov/.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

Nondiscrimination Statement

Cover

Upper left.—A mixed stand of pines and hardwoods in the northwestern part of the county. A majority of Coosa County is forested with loblolly and longleaf pines on smooth slopes and a variety of hardwoods on steep side slopes and along creeks.

Upper right.—Cahaba lilies in a shoal area in Hatchet Creek in central Coosa County. The Hatchet Creek area is used for many recreational activities, such as kayaking, fishing, and hunting. It flows through the county southwest and drains into the Coosa River in the southwestern part of the county.

Lower left.—A waterfall in an area of Wedowee very gravelly sandy loam, 15 to 35 percent slopes, in the central part of the county. Small waterfalls, which drain off of steep slopes into major creeks, are scattered throughout the county.

Lower right.—A native azalea in an area of Chewacla, Cartecay, and Toccoa soils, 0 to 1 percent slopes, frequently flooded, in the southeastern part of the county. Native azaleas add great esthetic value to Coosa County. They are found as understory plants along creeks and on lower side slopes.

Additional information about the Nation's natural resources is available online from the Natural Resources Conservation Service at http://www.nrcs.usda.gov.

Contents

How To Use This Soil Survey i
Foreword ix
General Nature of the Survey Area 2
History and Development 2
Climate 4
How This Survey Was Made 4
Survey Procedures 6
Detailed Soil Map Units 7
AcB—Alcovy sandy loam, 2 to 6 percent slopes 8
AlC2—Allen gravelly sandy loam, 2 to 10 percent slopes, moderately eroded 9
AtB—Altavista fine sandy loam, 2 to 6 percent slopes, rarely flooded 10
BdB2—Badin-Tatum-Tallapoosa complex, 2 to 6 percent slopes, moderately eroded 11
BfC—Badin-Tallapoosa-Fruithurst complex, 3 to 10 percent slopes 13
BmD2—Bethlehem-Madison complex, 6 to 15 percent slopes, moderately eroded 15
CeB2—Cecil sandy loam, 2 to 6 percent slopes, moderately eroded 17
CeC2—Cecil sandy loam, 6 to 10 percent slopes, moderately eroded 18
CHA—Chewacla, Cartecay, and Toccoa soils, 0 to 1 percent slopes, frequently flooded 19
DaB—Davidson clay loam, 2 to 6 percent slopes 21
DAM—Dam 22
DdD3—Davidson clay loam, 6 to 15 percent slopes, severely eroded 22
DeB—Decatur silt loam, 2 to 6 percent slopes 23
EnB—Enon-Wynott complex, 2 to 6 percent slopes 23
GrD—Grover sandy loam, 6 to 15 percent slopes 25
HdB—Hard Labor loamy sand, 2 to 6 percent slopes 26
HdC—Hard Labor loamy sand, 6 to 10 percent slopes 27
LcB—Locust fine sandy loam, 2 to 6 percent slopes 28
LoF—Louisa-Mountain Park complex, 30 to 50 percent slopes 29
LrD—Louisburg-Rion-Rock outcrop complex, 6 to 15 percent slopes, very bouldery 31
LrE—Louisburg-Rion-Rock outcrop complex, 15 to 35 percent slopes, very bouldery 33
MaB2—Madison fine sandy loam, 2 to 6 percent slopes, moderately eroded 34
MaD2—Madison fine sandy loam, 6 to 15 percent slopes, moderately eroded 35
MdE2—Madison-Louisa complex, 15 to 30 percent slopes, moderately eroded 36
MxD2—Mecklenburg gravelly loam, 6 to 15 percent slopes 37
PaC2—Pacolet gravelly sandy loam, 3 to 10 percent slopes, moderately eroded 38
PrD2—Pacolet-Rion complex, 6 to 15 percent slopes, moderately eroded, stony 39
PrE2—Pacolet-Rion complex, 15 to 25 percent slopes, moderately eroded, stony 41
Pt—Pits, borrow 42

ShA—Shellbluff loam, 0 to 2 percent slopes, frequently flooded 43
SpB—Springhill sandy loam, 2 to 5 percent slopes 44
SwF—Sweetapple-Mountain Park complex, 15 to 40 percent slopes 45
TaD2—Tallapoosa-Badin-Fruithurst complex, 6 to 15 percent slopes, moderately eroded 47
TfE2—Tallapoosa-Fruithurst complex, 15 to 40 percent slopes, moderately eroded 49
ToA—Toccoa fine sandy loam, 0 to 2 percent slopes, occasionally flooded 50
TwD—Townley gravelly fine sandy loam, 6 to 15 percent slopes 52
TxE—Townley-Montevallo complex, 15 to 40 percent slopes 53
W—Water 54
WeC2—Wedowee gravelly sandy loam, 3 to 10 percent slopes, moderately eroded 54
WeD2—Wedowee gravelly sandy loam, 6 to 15 percent slopes, moderately eroded 55
WfE—Wedowee very gravelly sandy loam, 15 to 35 percent slopes 56
WhA—Wehadkee silt loam, 0 to 2 percent slopes, frequently flooded 57
WkB—Wickham sandy loam, 2 to 6 percent slopes, rarely flooded 58
WnE—Wynott-Wilkes complex, 15 to 45 percent slopes, very stony 59
WyD—Wynott-Winnsboro complex, 6 to 15 percent slopes, very stony 61
Use and Management of the Soils 63
Interpretive Ratings 63
Rating Class Terms 63
Numerical Ratings 63
Crops and Pasture 64
Yields per Acre 64
Land Capability Classification 64
Prime Farmland and Other Important Farmlands 65
Landscaping and Gardening 66
Forestland Productivity and Management 70
Forestland Productivity 70
Forestland Management 70
Recreational Development 72
Wildlife Habitat 73
Hydric Soils 76
Engineering 77
Building Site Development 78
Sanitary Facilities 80
Construction Materials 82
Water Management 83
Soil Properties 85
Engineering Properties 85
Physical Soil Properties 86
Chemical Soil Properties 88

Water Features ... 88
Soil Features ... 90
Classification of the Soils ... 91
Soil Series and Their Morphology ... 91
Alcovy Series ... 92
Allen Series ... 93
Altavista Series ... 94
Badin Series ... 96
Bethlehem Series ... 97
Cartecay Series ... 98
Cecil Series ... 100
Chewacla Series ... 101
Davidson Series ... 103
Decatur Series ... 104
Enon Series ... 105
Fruithurst Series ... 107
Grover Series ... 108
Hard Labor Series ... 109
Locust Series ... 111
Louisa Series ... 112
Louisburg Series ... 114
Madison Series ... 115
Mecklenburg Series ... 117
Montevallo Series ... 119
Mountain Park Series ... 120
Pacolet Series ... 121
Rion Series ... 123
Shellbluff Series ... 124
Springhill Series ... 125
Sweetapple Series ... 126
Tallapoosa Series ... 128
Tatum Series ... 130
Toccoa Series ... 131
Townley Series ... 133
Wedowee Series ... 134
Wehadkee Series ... 136
Wickham Series ... 137
Wilkes Series ... 139
Winnsboro Series ... 140
Wynott Series ... 143
Formation of the Soils ... 145
Factors of Soil Formation ... 145
Parent Material ... 145
Climate ... 147

Relief 147
Plants and Animals 147
Time 148
Processes of Horizon Differentiation 148
References 151
Glossary 153
Tables 169
Table 1.—Temperature and Precipitation 170
Table 2.—Freeze Dates in Spring and Fall 171
Table 3.—Growing Season 171
Table 4.—Acreage and Proportionate Extent of the Soils 172
Table 5a.—Land Capability Class and Nonirrigated Yields by Map Unit (Part 1) 173
Table 5b.—Land Capability Class and Nonirrigated Yields by Map Unit (Part 2) 176
Table 6.—Prime Farmland and Other Important Farmlands 179
Table 7.—Forestland Productivity 180
Table 8a.—Forestland Management 189
Table 8b.—Forestland Management (Part 2) 196
Table 9a.—Recreation (Part 1) 204
Table 9b.—Recreation (Part 2) 211
Table 10.—Wildlife Habitat 217
Table 11.—Hydric Soils 223
Table 12a.—Building Site Development (Part 1) 224
Table 12b.—Building Site Development (Part 2) 230
Table 13a.—Sanitary Facilities (Part 1) 237
Table 13b.—Sanitary Facilities (Part 2) 245
Table 14a.—Construction Materials (Part 1) 251
Table 14b.—Construction Materials (Part 2) 257
Table 15.—Water Management 265
Table 16.—Engineering Properties 271
Table 17.—Physical Soil Properties 289
Table 18.—Chemical Soil Properties 300
Table 19.—Water Features 308
Table 20.—Soil Features 315
Table 21.—Taxonomic Classification of the Soils 320

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Foreword

Soil surveys contain information that affects land use planning in survey areas. They include predictions of soil behavior for selected land uses. The surveys highlight soil limitations, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

Soil surveys are designed for many different users. Farmers, ranchers, foresters, and agronomists can use the surveys to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the surveys to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the surveys to help them understand, protect, and enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. The information in this report is intended to identify soil properties that are used in making various land use or land treatment decisions. Statements made in this report are intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described, and information on specific uses is given. Help in using this publication and additional information are available at the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

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Soil Survey of
Coosa County, Alabama

By John L. Burns, Natural Resources Conservation Service

Fieldwork by Robert Beaty, John L. Burns, Ronald J. Koptis, Lawrence E. McGhee, and Johnny C. Trayvick, Natural Resources Conservation Service

United States Department of Agriculture, Natural Resources Conservation Service, in cooperation with
Alabama Agricultural Experiment Station, Alabama Cooperative Extension System, Alabama Soil and Water Conservation Committee, and Alabama Department of Agriculture and Industries

COOSA COUNTY is in the east-central part of Alabama (fig. 1). It has a total area of 426,480 acres, or about 652 square miles. It is bounded on the east by Tallapoosa

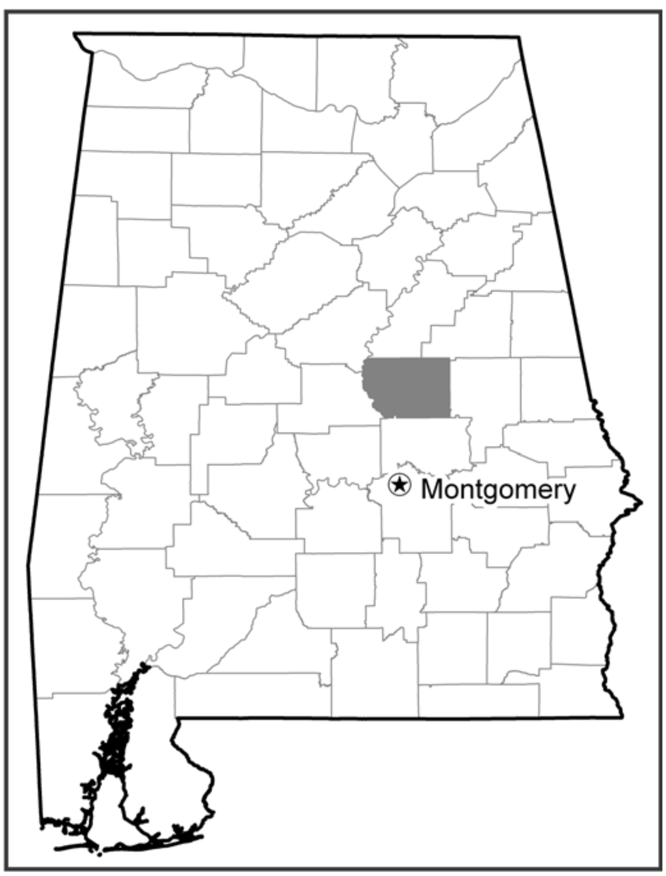

Figure 1.—Location of Coosa County in Alabama.

Figure 2.—Ware Island on the Coosa River, or Lay Lake. The island is mapped as Badin-Tallapoosa-Fruithurst complex, 3 to 10 percent slopes. Lay Dam lies just north of Ware Island and forms Lay Lake. The Coosa River forms the western boundary of Coosa County and eventually flows into the Alabama River.

County; on the south by Elmore County; on the west by the Coosa River (fig. 2), which separates Coosa County from Shelby and Chilton Counties; and on the north by Clay and Talladega Counties. Rockford, the second largest town in terms of population, is the county seat of government. Other towns include Goodwater in the northeast part of the county and Equality in the southeast part of the county. Coosa County is mostly rural. It had a population of approximately 11,044 in 2006 (USDC, 2006).

About 415,998 acres of the total land consists of land areas and small areas of water. About 10,482 acres consists of large bodies of water, mainly comprised of Lake Martin and the Coosa River. The majority of Coosa County is located in the Southern Piedmont Plateau, and the northwest two percent of the county is located in the Sand Mountain Appalachian Plateau and the Limestone Ridge and Valley regions of the state.

This soil survey updates the survey of Coosa County published in 1929 (Taylor and Stroud, 1929). It provides the latest aerial photography, soil classification, detailed map unit descriptions, and tables.

General Nature of the Survey Area

This section provides general information about the survey area. It describes the history and development and the climate.

History and Development

Coosa County was formed in December 1832 from land acquired in the Creek Cession of 1832 in the Treaty of Cusseta, signed in March 1832 (Owen, 1921). It was created from part of the Alabama territory originally included in the Georgia Grant. Originally, the county's south boundary line was below the confluence of the Coosa and Tallapoosa rivers near the present day site of Wetumpka. Most of the early settlement sprang up in the southern part of the county because the rivers were developed as a transportation system for moving goods and supplies. After the formation of Elmore County in 1866 (Brewer, 1942), which removed the southernmost area from Coosa County, the county seat of Rockford grew in importance to the county's settlers. The completion of the turnpike road that passed through Rockford brought much trade and commerce to the central region of the county. After the construction of a road from the south of the county to the northeast region of the county, the city of Goodwater became a prominent trade center. Goodwater grew in population and in the amount of goods traded after the Central of Georgia Railroad decided to end its rail system at the town. This action made the town the only local depot for trade of goods by railroad.

The mid 1800s brought about the emergence of cotton farming as a cash-generating enterprise in the southern and eastern parts of the county. The communities of Nixburg and Equality in the central and southeastern areas benefited greatly from the growth of cotton and the ginning of cotton fibers. The community of Bradford in the eastern part of the county was the location of Bradford Manufacturing. This company spun the cotton fibers into cloth and made military uniforms (Brewer, 1942). According to the Census, the county population reached its highest reported level, 19,273, in 1860 during this period of high agricultural production (USDI, 1860). Cotton production remained important through the early 1900s. The 1930 Census listed cotton as having more acres farmed than any other crop (USDI, 1930). Insects, especially the boll weevil, led to a decline in cotton production in the mid 1900s. Eventually manufacturing and the forest industries replaced row crop production as the dominant means of income for Coosa County residents.

The vast acres in the western part of the county of first-growth pines and hardwoods species provided a seemingly unlimited supply of saw timber for the building trades for many years. The mill town of Hillwood in the northwest part of the county thrived from 1931 to 1947. Hillwood was a self-supporting, lumber-producing community of about 150 families who were all employed by Ralph Lumber Company in the harvesting and sawmilling of timber. After these forests of virgin trees were logged completely, the mill town and all of its supporting structures, including the railroad used to transport lumber, were dismantled, and the laborers were forced to relocate to the central and eastern parts of the county.

The mineral resources in Coosa County have long been recognized as valuable to industrial development. The early 1900s was a time filled with exploratory mining in order to evaluate the extent and kind of mineral resources. Gold, tin, marble, graphite, and mica deposits were found in the central and western parts of the county by digging shallow observation pits and by drilling exploratory shafts. Tin was the only mineral extracted in significant quantities. Coosa Cassterite Corporation mined tin in the Hissop community during the year of 1937 (Reed, 1950). Low ore concentrations in the mined rock and the great distance the rock had to be transported for crushing and refining led to the closing of the mine after only 12 months of operation. A significant quantity of marble is located in the Marble Valley region in the northwestern part of the county but has never been mined due to the nearby location of a greater mass of marble in Talladega County.

The exodus from the rural areas to the population centers intensified in the mid-1900s after textile mills were opened within the county at Rockford and at the eastern edge of the county near the Ray community. Avondale Mills, north of Rockford, became the largest employer in the county during the latter part of the 1900s. The sewing plant of Russell Mills near the Tallapoosa County line provided steady employment for 200 to 300 employees. The largest employer in Coosa County in

2005 was Madex, a commercial cabinet maker, located in Goodwater. The timber industry remains the largest contributor to the income of county residents; $10,718,000 in timber products sales was reported in 2002 (NASS, 2003) in addition to the salaries of the many workers involved in harvest and milling operations.

Climate

Prepared by the Natural Resources Conservation Service, National Water and Climate Center, Portland, Oregon.

Climate tables are created from the climate station in Sylacauga, Alabama. Thunderstorm days, relative humidity, percent sunshine, and wind information are estimated from the First Order station in Birmingham, Alabama.

Climate data are provided in tables 1, 2, and 3. The data were recorded at Sylacauga, Alabama, in the period 1971 to 2000. Table 1 gives data on temperature and precipitation for the survey area as recorded at Sylacauga, Alabama. Table 2 shows probable dates of the first freeze in fall and the last freeze in spring. Table 3 provides data on the length of the growing season.

In winter, the average temperature is 45.5 degrees F and the average daily minimum temperature is 33.1 degrees. The lowest temperature on record, which occurred on January 21, 1985, is -4 degrees. In summer, the average temperature is 77.3 degrees and the average daily maximum temperature is 89.9 degrees. The highest recorded temperature, which occurred on August 19, 1995, is 104 degrees.

Growing degree days are shown in table 1. They are equivalent to “heat units.” During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (50 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is about 55.96 inches. Of this, 28.77 inches, or 51 percent, usually falls in April through October. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 6.05 inches on October 5, 1995. Thunderstorms occur on about 59 days each year, and most occur in July.

The average seasonal snowfall is about 1.0 inch. The greatest snow depth at any one time during the period of record was 10 inches on March 13, 1993. On the average, 0.2 days of the year have at least 1 inch of snow on the ground. The number of such days varies greatly from year to year.

The average relative humidity in midafternoon is about 56 percent. Humidity is higher at night, and the average at dawn is about 85 percent. The sun shines 62 percent of the time possible in summer and 46 percent in winter. The prevailing wind is from the east-northeast. Average windspeed is highest, 7.7 miles per hour, in March.

How This Survey Was Made

This survey was made to provide information about the soils and miscellaneous areas in the survey area. The information includes a description of the soils and miscellaneous areas and their location and a discussion of their suitability, limitations, and management for specified uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They dug many holes to study the soil profile, which is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in the survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Survey Procedures

The general procedures followed in making this survey are described in the “National Soil Survey Handbook” (USDA, 2002) of the Natural Resources Conservation Service. The “Soil Survey of Coosa County, Alabama” published in 1929 (Taylor and Stroud, 1929) was among the references used.

Before the fieldwork began, preliminary boundaries of landforms were plotted stereoscopically on high altitude aerial photographs. U.S. Geological Survey topographic maps and aerial photographs were studied to relate land and image features.

Traverses were made on foot and by vehicle at variable intervals, depending on the complexity of the soil landscape and geology. Soil examinations along each traverse were made at intervals of 50, 100, or 300 feet, depending on the landscape and soil pattern (Johnson, 1961; Steers and Hajek, 1979). Observations of landforms, uprooted trees, vegetation, roadbanks, and animal burrows were made continuously without regard to spacing. Soil boundaries were determined on the basis of soil examinations, observations, and photo interpretation. The soil material was examined with the aid of a spade, a hand auger, or a truck-mounted probe to a depth of 5 feet or more. The pedons described as typical were observed and studied in excavations.

Samples for chemical and physical analyses and for engineering test data were taken from the site of the typical pedons of some of the major soils in the survey area. The analyses were made by the Agronomy and Soil Clay Mineralogy Laboratory, Auburn University, Auburn, Alabama; the National Soil Survey Laboratory, Lincoln, Nebraska; and the Alabama Department of Highways and Transportation, Montgomery, Alabama. The results of some of the analyses are published in this soil survey report. Unpublished analyses and the laboratory procedures can be obtained from the laboratories.

High-altitude aerial photography base maps at a scale of 1:24,000 were used for mapping of soils and surface drainage in the field. Cultural features were transferred from U.S. Geological Survey 7.5-minute series topographic maps and were recorded from visual observations. Soil mapping, drainage patterns, and cultural features recorded on base maps were transferred to half-tone film positives by soil scientists. The film positives were then transferred to 1:24,000 base maps developed from digital orthophotography prior to the final map-finishing process.

Detailed Soil Map Units

The map units delineated on the detailed soil maps in this survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this section, along with the maps, can be used to determine the suitability and potential of a unit for specific uses. They also can be used to plan the management needed for those uses.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. The contrasting components are mentioned in the map unit descriptions. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives the principal hazards and limitations to be considered in planning for specific uses.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. The soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Cecil sandy loam 2 to 6 percent slopes, moderately eroded, is a phase of the Cecil series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Madison-Louisa complex, 15 to 30 percent slopes, moderately eroded, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Chewacla, Cartecay, and Toccoa soils, 0 to 1 percent slopes, frequently flooded, is an undifferentiated group in this survey area.

This survey includes *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Pits, borrow, is an example.

Table 4 lists the map units in this survey area. Other tables give properties of the soils and the limitations, capabilities, and potentials for many uses. The Glossary defines many of the terms used in describing the soils.

AcB—Alcovy sandy loam, 2 to 6 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Toeslopes

Map Unit Composition

Alcovy and similar soils: Typically 85 percent

Typical Profile

Surface layer:
0 to 6 inches; sandy loam

Subsoil:
6 to 21 inches; sandy clay loam
21 to 28 inches; sandy clay loam
28 to 36 inches; clay loam
36 to 55 inches; sandy clay loam

Subsoil:
55 to 80 inches; sandy clay loam

Minor Components

- Cecil soils
- Pacolet soils

Soil Properties and Qualities

Available water capacity: Moderate (about 6.7 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Moderately well drained

Depth to seasonal water saturation: About 2.0 to 3.0 feet
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from igneous and sedimentary rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Prime farmland in all areas
Land capability class: 2e
Hydric soil: No

AlC2—Allen gravelly sandy loam, 2 to 10 percent slopes, moderately eroded

Setting

Major land resource area: Southern Appalachian Ridges and Valleys (MLRA 128)
Landform: Hillslopes and terraces
Position on the landform: Footslopes

Map Unit Composition

Allen and similar soils: Typically 90 percent

Typical Profile

Surface layer:
0 to 3 inches; gravelly sandy loam

Subsoil:
3 to 7 inches; gravelly sandy clay loam
7 to 18 inches; sandy clay loam
18 to 36 inches; sandy clay loam
36 to 80 inches; gravelly clay loam

Minor Components

- Decatur soils
- Locust soils

Soil Properties and Qualities

Available water capacity: Moderate (about 9.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium

Parent material: Colluvium weathered from sandstone and shale and/or fine-loamy residuum weathered from sandstone and shale

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Hydric soil: No

AtB—Altavista fine sandy loam, 2 to 6 percent slopes, rarely flooded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Stream terraces

Map Unit Composition

Altavista and similar soils: Typically 90 percent

Typical Profile

Surface layer:
0 to 7 inches; sandy loam

Subsoil:
7 to 11 inches; sandy clay loam
11 to 27 inches; clay loam
27 to 40 inches; clay loam
40 to 52 inches; sandy clay loam

Substratum:
52 to 80 inches; sandy loam

Minor Components

- Chewacla soils
- Wehadkee soils

Soil Properties and Qualities

Available water capacity: High (about 9.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 1.5 to 2.5 feet
Water table kind: Apparent
Flooding hazard: Rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low
Parent material: Loamy alluvium derived from igneous, metamorphic, and sedimentary rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Prime farmland in all areas
Land capability class: 2e
Hydric soil: No

BdB2—Badin-Tatum-Tallapoosa complex, 2 to 6 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Ridges
Position on the landform: Summits

Map Unit Composition

Badin and similar soils: Typically 40 percent
Tatum and similar soils: Typically 30 percent
Tallapoosa and similar soils: Typically 20 percent

Typical Profile

Badin
Surface layer:
0 to 5 inches; loam

Subsoil:
5 to 14 inches; clay
14 to 20 inches; clay
20 to 28 inches; clay loam

Bedrock:
28 to 80 inches; bedrock

Tatum
Surface layer:
0 to 5 inches; gravelly loam

Subsurface:
5 to 10 inches; loam

Subsoil:
10 to 15 inches; silty clay loam
15 to 31 inches; clay loam
31 to 42 inches; silty clay loam

Bedrock:
42 to 80 inches; bedrock

Tallapoosa
Surface layer:
0 to 4 inches; gravelly loam

Subsurface:
4 to 8 inches; gravelly loam

Subsoil:
8 to 12 inches; clay loam
12 to 16 inches; clay loam

Bedrock:
16 to 80 inches; bedrock

Minor Components

- Fruithurst soils

Soil Properties and Qualities

Badin
Available water capacity: Low (about 4.9 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Parent material: Residuum weathered from phyllite and sericite schist

Tatum
Available water capacity: Moderate (about 6.4 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Parent material: Residuum weathered from phyllite and sericite schist

Tallapoosa
Available water capacity: Very low (about 2.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from phyllite and sericite schist

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Badin
Prime farmland: Not prime farmland

Land capability class: 3e
Hydric soil: No

Tatum
Prime farmland: Not prime farmland
Land capability class: 3e
Hydric soil: No

Tallapoosa
Prime farmland: Not prime farmland
Land capability class: 3e
Hydric soil: No

BfC—Badin-Tallapoosa-Fruithurst complex, 3 to 10 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Ridges
Position on the landform: Summits

Map Unit Composition

Badin and similar soils: Typically 40 percent
Tallapoosa and similar soils: Typically 30 percent
Fruithurst and similar soils: Typically 25 percent

Typical Profile

Badin
Surface layer:
0 to 5 inches; loam

Subsoil:
5 to 14 inches; clay
14 to 20 inches; clay
20 to 28 inches; clay loam

Bedrock:
28 to 80 inches; bedrock

Tallapoosa
Surface layer:
0 to 4 inches; gravelly loam

Subsurface:
4 to 8 inches; gravelly loam

Subsoil:
8 to 12 inches; clay loam
12 to 16 inches; clay loam

Bedrock:
16 to 80 inches; bedrock

Fruithurst
Surface layer:
0 to 3 inches; gravelly loam

Subsurface:
3 to 7 inches; loam

Subsoil:
7 to 21 inches; clay loam
21 to 30 inches; silt loam

Bedrock:
30 to 80 inches; bedrock

Minor Components

- Chewacla soils
- Tatum soils

Soil Properties and Qualities

Badin
Available water capacity: Low (about 4.9 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Parent material: Residuum weathered from phyllite and sericite schist

Tallapoosa
Available water capacity: Very low (about 2.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from phyllite and sericite schist

Fruithurst
Available water capacity: Low (about 5.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from phyllite and sericite schist

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Badin
Prime farmland: Not prime farmland

Land capability class: 3e
Hydric soil: No

Tallapoosa
Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

Fruithurst
Prime farmland: Not prime farmland
Land capability class: 3e
Hydric soil: No

BmD2—Bethlehem-Madison complex, 6 to 15 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes and ridges (fig. 3)
Position on the landform: Summits and backslopes

Figure 3.—Typical landscape of Bethlehem-Madison complex, 6 to 15 percent slopes. This map unit occurs on hillslopes and ridges in the Southern Piedmont.

Map Unit Composition

Bethlehem and similar soils: Typically 60 percent
Madison and similar soils: Typically 30 percent

Typical Profile

Bethlehem
Surface layer:
0 to 4 inches; gravelly sandy loam

Subsoil:
4 to 12 inches; clay
12 to 24 inches; clay
24 to 30 inches; clay

Bedrock:
30 to 80 inches; bedrock

Madison
Surface layer:
0 to 4 inches; fine sandy loam

Subsurface:
4 to 10 inches; sandy clay loam

Subsoil:
10 to 23 inches; clay
23 to 28 inches; sandy clay loam
28 to 40 inches; sandy clay loam

Substratum:
40 to 80 inches; sandy loam saprolite

Minor Components

- Chewacla soils
- Louisa soils
- Grover soils

Soil Properties and Qualities

Bethlehem
Available water capacity: Low (about 4.0 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from metamorphic rock and/or schist

Madison
Available water capacity: Moderate (about 7.9 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low

Runoff class: Medium
Parent material: Residuum derived from mica schist

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Bethlehem
Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

Madison
Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

CeB2—Cecil sandy loam, 2 to 6 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Ridges
Position on the landform: Summits

Map Unit Composition

Cecil and similar soils: Typically 90 percent

Typical Profile

Surface layer:
0 to 4 inches; sandy loam

Subsoil:
4 to 12 inches; clay loam
12 to 39 inches; clay
39 to 50 inches; clay loam
50 to 64 inches; clay loam

Substratum:
64 to 80 inches; sandy loam saprolite

Minor Components

- Pacolet soils
- Hard Labor soils
- Wedowee soils

Soil Properties and Qualities

Available water capacity: Moderate (about 8.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None

Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from felsic, igneous, and high grade metamorphic rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Prime farmland in all areas
Land capability class: 2e
Hydric soil: No

CeC2—Cecil sandy loam, 6 to 10 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Ridges
Position on the landform: Summits

Map Unit Composition

Cecil and similar soils: Typically 90 percent

Typical Profile

Surface layer:
0 to 4 inches; sandy loam

Subsoil:
4 to 12 inches; clay loam
12 to 39 inches; clay
39 to 50 inches; clay loam
50 to 64 inches; clay loam

Substratum:
64 to 80 inches; sandy loam saprolite

Minor Components

- Pacolet soils
- Wedowee soils
- Hard Labor soils

Soil Properties and Qualities

Available water capacity: Moderate (about 8.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None

Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from felsic, igneous, and high grade metamorphic rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Hydric soil: No

CHA—Chewacla, Cartecay, and Toccoa soils, 0 to 1 percent slopes, frequently flooded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Flood plains

Map Unit Composition

Chewacla and similar soils: Typically 45 percent
Cartecay and similar soils: Typically 25 percent
Toccoa and similar soils: Typically 20 percent

Typical Profile

Chewacla
Surface layer:
0 to 2 inches; silty clay loam
2 to 6 inches; silty clay loam

Subsoil:
6 to 20 inches; silty clay loam
20 to 27 inches; loam
27 to 53 inches; clay loam

Substratum:
53 to 80 inches; silt loam

Cartecay
Surface layer:
0 to 3 inches; loam

Substratum:
3 to 13 inches; fine sandy loam
13 to 18 inches; fine sandy loam
18 to 32 inches; fine sandy loam
32 to 47 inches; gravelly fine sandy loam
47 to 80 inches; fine sandy loam

Toccoa
Surface layer:
0 to 4 inches; fine sandy loam

Substratum:
4 to 28 inches; sandy loam
28 to 36 inches; sandy loam
36 to 43 inches; silt loam
43 to 80 inches; sandy loam

Minor Components

- Wehadkee soils
- Altavista soils

Soil Properties and Qualities

Chewacla
Available water capacity: High (about 11.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Somewhat poorly drained
Depth to seasonal water saturation: About 0.5 foot to 1.5 feet
Water table kind: Apparent
Flooding hazard: Frequent
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Negligible
Parent material: Loamy alluvium derived from granite, metamorphic, and sedimentary rock

Cartecay
Available water capacity: Moderate (about 6.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Somewhat poorly drained
Depth to seasonal water saturation: About 0.5 foot to 1.5 feet
Water table kind: Apparent
Flooding hazard: Frequent
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Negligible
Parent material: Loamy alluvium derived from granite, metamorphic, and sedimentary rock

Toccoa
Available water capacity: Moderate (about 6.6 inches)
Slowest saturated hydraulic conductivity: High (about 1.98 in/hr)
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 2.5 to 5.0 feet
Water table kind: Apparent
Flooding hazard: Frequent
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Negligible
Parent material: Loamy alluvium derived from granite, metamorphic, and sedimentary rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Chewacla
Prime farmland: Not prime farmland
Land capability class: 4w
Hydric soil: No

Cartecay
Prime farmland: Not prime farmland
Land capability class: 5w
Hydric soil: No

Toccoa
Prime farmland: Not prime farmland
Land capability class: 3w
Hydric soil: No

DaB—Davidson clay loam, 2 to 6 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Ridges
Position on the landform: Summits

Map Unit Composition

Davidson and similar soils: Typically 90 percent

Typical Profile

Surface layer:
0 to 5 inches; clay loam

Subsoil:
5 to 30 inches; clay
30 to 80 inches; clay

Minor Components

- Cecil soils
- Enon soils
- Mecklenburg soils

Soil Properties and Qualities

Available water capacity: High (about 10.1 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from mafic and/or metamorphic rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Prime farmland in all areas
Land capability class: 2e
Hydric soil: No

DAM—Dam

This map unit includes the Lay and Mitchell Dams. These dams are concrete barriers that obstruct the flow of water on the Coosa River and form Lay and Mitchell Lakes.

DdD3—Davidson clay loam, 6 to 15 percent slopes, severely eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Davidson and similar soils: Typically 85 percent

Typical Profile

Surface layer:
0 to 5 inches; clay loam

Subsoil:
5 to 30 inches; clay
30 to 80 inches; clay

Minor Components

- Enon soils
- Cecil soils
- Chewacla soils

Soil Properties and Qualities

Available water capacity: High (about 10.1 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered mafic and/or metamorphic rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

DeB—Decatur silt loam, 2 to 6 percent slopes

Setting

Major land resource area: Southern Appalachian Ridges and Valleys (MLRA 128)
Landform: Interfluves

Map Unit Composition

Decatur and similar soils: Typically 90 percent

Typical Profile

Surface layer:
0 to 6 inches; silt loam

Subsoil:
6 to 11 inches; silty clay loam
11 to 60 inches; silty clay loam
60 to 80 inches; clay loam

Minor Components

- Allen soils
- Locust soils

Soil Properties and Qualities

Available water capacity: High (about 9.8 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Low
Parent material: Residuum weathered from limestone

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Prime farmland in all areas
Land capability class: 2e
Hydric soil: No

EnB—Enon-Wynott complex, 2 to 6 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Ridges
Position on the landform: Summits

Map Unit Composition

Enon and similar soils: Typically 60 percent
Wynott and similar soils: Typically 20 percent

Typical Profile

Enon
Surface layer:
0 to 4 inches; very gravelly sandy loam

Subsurface:
4 to 12 inches; very gravelly sandy clay loam

Subsoil:
12 to 25 inches; clay
25 to 50 inches; clay

Substratum:
50 to 80 inches; loam saprolite

Wynott
Surface layer:
0 to 8 inches; gravelly sandy loam

Subsurface:
8 to 12 inches; gravelly sandy loam

Subsoil:
12 to 23 inches; clay
23 to 32 inches; clay
32 to 38 inches; clay loam

Bedrock:
38 to 80 inches; bedrock

Minor Components

- Mecklenburg soils
- Winnsboro soils

Soil Properties and Qualities

Enon
Available water capacity: High (about 10.9 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: High
Runoff class: Medium
Parent material: Residuum weathered from mafic crystalline rock

Wynott
Available water capacity: Moderate (about 6.1 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: High

Runoff class: High
Parent material: Residuum weathered from mafic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Enon
Prime farmland: Not prime farmland
Land capability class: 2e
Hydric soil: No

Wynott
Prime farmland: Not prime farmland
Land capability class: 3e
Hydric soil: No

GrD—Grover sandy loam, 6 to 15 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Ridges and hillslopes
Position on the landform: Summits and backslopes

Map Unit Composition

Grover and similar soils: Typically 85 percent

Typical Profile

Surface layer:
0 to 5 inches; sandy loam

Subsoil:
5 to 23 inches; clay loam
23 to 34 inches; loam

Substratum:
34 to 50 inches; sandy loam saprolite
50 to 80 inches; sandy loam saprolite

Minor Components

- Louisburg soils
- Madison soils
- Chewacla soils

Soil Properties and Qualities

Available water capacity: Moderate (about 6.8 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium

Parent material: Residuum weathered from biotite gneiss and/or residuum weathered from mica schist

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

HdB—Hard Labor loamy sand, 2 to 6 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Toeslopes

Map Unit Composition

Hard Labor and similar soils: Typically 90 percent

Typical Profile

Surface layer:
0 to 2 inches; sandy loam
2 to 9 inches; sandy loam

Subsurface:
9 to 15 inches; sandy loam

Subsoil:
15 to 45 inches; clay
45 to 52 inches; sandy clay loam

Substratum:
52 to 80 inches; sandy clay loam saprolite

Minor Components

- Wedowee soils
- Cecil soils
- Pacolet soils
- Wehadkee soils

Soil Properties and Qualities

Available water capacity: Moderate (about 8.8 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 2.5 to 5.0 feet
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Parent material: Residuum weathered from felsic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Prime farmland in all areas
Land capability class: 2e
Hydric soil: No

HdC—Hard Labor loamy sand, 6 to 10 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Toeslopes

Map Unit Composition

Hard Labor and similar soils: Typically 85 percent

Typical Profile

Surface layer:
0 to 2 inches; sandy loam
2 to 9 inches; sandy loam

Subsurface:
9 to 15 inches; sandy loam

Subsoil:
15 to 45 inches; clay
45 to 52 inches; sandy clay loam

Substratum:
52 to 80 inches; sandy clay loam saprolite

Minor Components

- Pacolet soils
- Wedowee soils
- Cecil soils
- Chewacla soils

Soil Properties and Qualities

Available water capacity: Moderate (about 8.8 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 2.5 to 5.0 feet
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from felsic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Hydric soil: No

LcB—Locust fine sandy loam, 2 to 6 percent slopes

Setting

Major land resource area: Southern Appalachian Ridges and Valleys (MLRA 128)
Landform: Hillslopes
Position on the landform: Toeslopes

Map Unit Composition

Locust and similar soils: Typically 85 percent

Typical Profile

Surface layer:
0 to 6 inches; fine sandy loam

Subsurface:
6 to 12 inches; gravelly sandy loam

Subsoil:
12 to 24 inches; sandy clay loam
24 to 31 inches; sandy clay loam
31 to 80 inches; loam

Minor Components

- Decatur soils
- Allen soils
- Shellbluff soils

Soil Properties and Qualities

Available water capacity: Low (about 5.1 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 1.5 to 2.0 feet
Water table kind: Perched
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Low
Parent material: Colluvium and alluvium derived from shale

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Prime farmland in all areas
Land capability class: 2e
Hydric soil: No

LoF—Louisa-Mountain Park complex, 30 to 50 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes (fig. 4)
Position on the landform: Backslopes and shoulders

Map Unit Composition

Louisa and similar soils: Typically 65 percent
Mountain park and similar soils: Typically 20 percent

Figure 4.—An area of Louisa-Mountain Park complex, 30 to 50 percent slopes. Areas of this soil are too steep to harvest pine, so they generally consist of mixed hardwoods and understory plants, such as the wild azalea.

Typical Profile

Louisa
Surface layer:
0 to 3 inches; loam

Subsoil:
3 to 10 inches; loam
10 to 17 inches; sandy clay loam

Bedrock:
17 to 80 inches; bedrock

Mountain Park
Surface layer:
0 to 4 inches; gravelly sandy loam

Subsurface:
4 to 10 inches; gravelly sandy loam

Subsoil:
10 to 23 inches; gravelly sandy clay loam
23 to 32 inches; sandy loam

Bedrock:
32 to 46 inches; bedrock

Substratum:
46 to 55 inches; sandy loam saprolite

Bedrock:
55 to 80 inches; bedrock

Minor Components

- Rion soils
- Madison soils
- Cartecay soils

Soil Properties and Qualities

Louisa
Available water capacity: Very low (about 2.2 inches)
Slowest saturated hydraulic conductivity: High (about 1.98 in/hr)
Drainage class: Somewhat excessively drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very high
Parent material: Residuum weathered from mica schist

Mountain Park
Available water capacity: Low (about 3.8 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None

Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from mica schist and biotite gneiss

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Louisa
Prime farmland: Not prime farmland
Land capability class: 7e
Hydric soil: No

Mountain Park
Prime farmland: Not prime farmland
Land capability class: 7e
Hydric soil: No

LrD—Louisburg-Rion-Rock outcrop complex, 6 to 15 percent slopes, very bouldery

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Louisburg and similar soils: Typically 45 percent
Rion and similar soils: Typically 35 percent
Rock outcrop and similar soils: Typically 10 percent

Typical Profile

Louisburg
Surface layer:
0 to 8 inches; gravelly sandy loam

Subsurface:
8 to 15 inches; gravelly sandy loam

Subsoil:
15 to 21 inches; sandy loam
21 to 35 inches; sandy loam

Substratum:
35 to 64 inches; sandy loam saprolite

Bedrock:
64 to 80 inches; bedrock

Rion
Surface layer:
0 to 5 inches; gravelly sandy loam

Subsoil:
5 to 16 inches; sandy clay loam
16 to 32 inches; sandy clay loam
32 to 39 inches; clay loam

Substratum:
39 to 47; sandy loam saprolite
47 to 80; sandy loam saprolite

Minor Components

- Cartecay soils

Soil Properties and Qualities

Louisburg
Available water capacity: Moderate (about 7.2 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from granodiorite gneiss

Rion
Available water capacity: Moderate (about 7.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum derived from felsic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Louisburg
Prime farmland: Not prime farmland
Land capability class: 6s
Hydric soil: No

Rion
Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

Rock outcrop
Prime farmland: Not prime farmland

LrE—Louisburg-Rion-Rock outcrop complex, 15 to 35 percent slopes, very bouldery

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Louisburg and similar soils: Typically 40 percent
Rion and similar soils: Typically 40 percent
Rock outcrop and similar soils: Typically 15 percent

Typical Profile

Louisburg
Surface layer:
0 to 8 inches; gravelly sandy loam

Subsurface:
8 to 15 inches; gravelly sandy loam

Subsoil:
15 to 21 inches; sandy loam
21 to 35 inches; sandy loam

Substratum:
35 to 64 inches; sandy loam

bedrock:
64 to 80 inches; bedrock

Rion
Surface layer:
0 to 5 inches; gravelly sandy loam

Subsoil:
5 to 16 inches; sandy clay loam
16 to 32 inches; sandy clay loam
32 to 39 inches; clay loam saprolite

Substratum:
39 to 47; sandy loam saprolite
47 to 80; sandy loam saprolite

Minor Components

- Cartecay soils

Soil Properties and Qualities

Louisburg
Available water capacity: Moderate (about 7.2 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from granodiorite gneiss

Rion
Available water capacity: Moderate (about 7.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from felsic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Louisburg
Prime farmland: Not prime farmland
Land capability class: 7s
Hydric soil: No

Rion
Prime farmland: Not prime farmland
Land capability class: 7e
Hydric soil: No

Rock Outcrop
Prime farmland: Not prime farmland

MaB2—Madison fine sandy loam, 2 to 6 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Ridges
Position on the landform: Summits

Map Unit Composition

Madison and similar soils: Typically 90 percent

Typical Profile

Surface layer:
0 to 4 inches; fine sandy loam

Subsurface:
4 to 10 inches; sandy clay loam

Subsoil:
10 to 23 inches; clay
23 to 28 inches; sandy clay loam
28 to 40 inches; sandy clay loam

Substratum:
40 to 80 inches; sandy loam saprolite

Minor Components

- Grover soils

Soil Properties and Qualities

Available water capacity: Moderate (about 7.9 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from mica schist

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Prime farmland in all areas
Land capability class: 2e
Hydric soil: No

MaD2—Madison fine sandy loam, 6 to 15 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Ridges and hillslopes
Position on the landform: Summits and backslopes

Map Unit Composition

Madison and similar soils: Typically 85 percent

Typical Profile

Surface layer:
0 to 4 inches; fine sandy loam

Subsurface:
4 to 10 inches; sandy clay loam

Subsoil:
10 to 23 inches; clay
23 to 28 inches; sandy clay loam
28 to 40 inches; sandy clay loam

Substratum:
40 to 80 inches; sandy loam saprolite

Minor Components

- Rion soils
- Louisa soils
- Mountain Park soils
- Cartecay soils

Soil Properties and Qualities

Available water capacity: Moderate (about 7.9 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from mica schist

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

MdE2—Madison-Louisa complex, 15 to 30 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Madison and similar soils: Typically 60 percent
Louisa and similar soils: Typically 30 percent

Typical Profile

Madison
Surface layer:
0 to 4 inches; fine sandy loam

Subsurface:
4 to 10 inches; sandy clay loam

Subsoil:
10 to 23 inches; clay
23 to 28 inches; sandy clay loam
28 to 40 inches; sandy clay loam

Substratum:
40 to 80 inches; sandy loam saprolite

Louisa
Surface layer:
0 to 3 inches; loam

Subsoil:
3 to 10 inches; loam

10 to 17 inches; sandy clay loam

Bedrock:
17 to 80 inches; bedrock

Minor Components

- Cartecay soils
- Mountain Park soils
- Rion soils

Soil Properties and Qualities

Madison
Available water capacity: Moderate (about 7.9 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from mica schist

Louisa
Available water capacity: Very low (about 2.2 inches)
Slowest saturated hydraulic conductivity: High (about 1.98 in/hr)
Drainage class: Somewhat excessively drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from mica schist

Use and Management Considerations

See appropriate management sections for recommendations

Interpretive Groups

Madison
Prime farmland: Not prime farmland
Land capability class: 7e
Hydric soil: No

Louisa
Prime farmland: Not prime farmland
Land capability class: 7e
Hydric soil: No

MxD2—Mecklenburg gravelly loam, 6 to 15 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Ridges and hillslopes
Position on the landform: Backslopes and summits

Map Unit Composition

Mecklenburg and similar soils: Typically 85 percent

Typical Profile

Surface layer:
0 to 4 inches; gravelly loam

Subsoil:
4 to 15 inches; clay
15 to 25 inches; clay
25 to 33 inches; clay loam

Substratum:
33 to 60 inches; loam saprolite
60 to 80 inches; loam saprolite

Minor Components

- Enon soils
- Pacolet soils

Soil Properties and Qualities

Available water capacity: Moderate (about 7.8 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Parent material: Residuum weathered from intermediate and mafic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

PaC2—Pacolet gravelly sandy loam, 3 to 10 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Ridges
Position on the landform: Summits

Map Unit Composition

Pacolet and similar soils: Typically 85 percent

Typical Profile

Surface layer:
0 to 4 inches; gravelly sandy loam

Subsoil:
4 to 9 inches; clay loam

Subsoil:
9 to 25 inches; clay
25 to 36 inches; clay

Substratum:
36 to 56 inches; sandy loam
56 to 80 inches; sandy loam saprolite

Minor Components

- Wedowee soils
- Cecil soils

Soil Properties and Qualities

Available water capacity: Moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from felsic igneous and metamorphic rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Hydric soil: No

PrD2—Pacolet-Rion complex, 6 to 15 percent slopes, moderately eroded, stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Pacolet and similar soils: Typically 55 percent
Rion and similar soils: Typically 25 percent

Typical Profile

Pacolet
Surface layer:
0 to 4 inches; gravelly sandy loam

Subsoil:
4 to 9 inches; clay loam

Subsoil:
9 to 25 inches; clay
25 to 36 inches; clay

Substratum:
36 to 56 inches; sandy loam
56 to 80 inches; sandy loam saprolite

Rion
Surface layer:
0 to 5 inches; gravelly sandy loam

Subsoil:
5 to 16 inches; sandy clay loam
16 to 32 inches; sandy clay loam
32 to 39 inches; clay loam

Substratum:
39 to 47 inches; sandy loam saprolite
47 to 80 inches; sandy loam saprolite

Minor Components

- Wedowee soils
- Louisburg soils
- Cartecay soils

Soil Properties and Qualities

Pacolet
Available water capacity: Moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from felsic igneous and metamorphic rock

Rion
Available water capacity: Moderate (about 7.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from felsic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Pacolet
Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

Rion
Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

PrE2—Pacolet-Rion complex, 15 to 25 percent slopes, moderately eroded, stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Pacolet and similar soils: Typically 60 percent
Rion and similar soils: Typically 25 percent

Typical Profile

Pacolet
Surface layer:
0 to 4 inches; gravelly sandy loam

Subsoil:
4 to 9 inches; clay loam

Subsoil:
9 to 25 inches; clay
25 to 36 inches; clay

Substratum:
36 to 56 inches; sandy loam
56 to 80 inches; sandy loam saprolite

Rion
Surface layer:
0 to 5 inches; gravelly sandy loam

Subsoil:
5 to 16 inches; sandy clay loam
16 to 32 inches; sandy clay loam
32 to 39 inches; clay loam

Substratum:
39 to 47 inches; sandy loam saprolite
47 to 80 inches; sandy loam saprolite

Minor Components

- Louisburg soils
- Wedowee soils
- Cartecay soils

Soil Properties and Qualities

Pacolet
Available water capacity: Moderate (about 7.6 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from felsic igneous and metamorphic rock

Rion
Available water capacity: Moderate (about 7.3 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from felsic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Pacolet
Prime farmland: Not prime farmland
Land capability class: 6e
Hydric soil: No

Rion
Prime farmland: Not prime farmland
Land capability class: 6e
Hydric soil: No

Pt—Pits, borrow

Major land resource area: Southern Appalachian Ridges and Valleys and Southern Piedmont (MLRA 128 and 136)
Landform: Ridgetops, hillslopes, and terraces

Map Unit Composition

Pits and similar soils: Typically 90 percent

Typical Profile

This map unit consists of open excavations from which the original soil and underlying material have been removed for use at another location. Generally, the remaining material consists of strata of sand, gravel, cobbles, boulders, and mixed earthy materials. A typical profile has not been selected.

Minor Components

- Cecil soils
- Louisa soils
- Louisburg soils
- Toccoa soils
- Wedowee soils

Soil Properties and Qualities

Available water capacity: Variable
Slowest saturated hydraulic conductivity: Variable
Drainage class: Well drained to poorly drained
Depth to seasonal water saturation: Variable
Water table kind: Variable
Flooding hazard: None or rare
Ponding hazard: None
Shrink-swell potential: Variable
Runoff class: Variable

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 8s
Hydric soil: No

ShA—Shellbluff loam, 0 to 2 percent slopes, frequently flooded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Flood plains

Map Unit Composition

Shellbluff and similar soils: Typically 85 percent

Typical Profile

Surface layer:
0 to 8 inches; loam

Subsoil:
8 to 23 inches; silty clay loam
23 to 38 inches; silty clay loam
38 to 48 inches; silt loam

Substratum:
48 to 80 inches; sandy loam

Minor Components

- Decatur soils
- Locust soils
- Chewacla soils

Soil Properties and Qualities

Available water capacity: High (about 10.1 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Moderately well drained
Depth to seasonal water saturation: About 3.0 to 5.0 feet
Water table kind: Apparent
Flooding hazard: Occasional
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low
Parent material: Silty fluvial sediments derived from felsic igneous and metamorphic rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 2w
Hydric soil: No

SpB—Springhill sandy loam, 2 to 5 percent slopes

Setting

Major land resource area: Southern Coastal Plain (MLRA 133A)
Landform: Ridges
Position on the landform: Summits

Map Unit Composition

Springhill and similar soils: Typically 90 percent

Typical Profile

Surface layer:
0 to 6 inches; sandy loam

Subsoil:
6 to 19 inches; sandy clay loam
19 to 50 inches; sandy clay loam
50 to 80 inches; sandy loam

Minor Components

- Pacolet soils

Soil Properties and Qualities

Available water capacity: Moderate (about 7.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Loamy and sandy marine sediments

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Prime farmland in all areas
Land capability class: 2e
Hydric soil: No

SwF—Sweetapple-Mountain Park complex, 15 to 40 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Sweetapple and similar soils: Typically 55 percent
Mountain Park and similar soils: Typically 20 percent

Typical Profile

Sweetapple
Surface layer:
0 to 6 inches; gravelly sandy loam

Subsoil:
6 to 12 inches; gravelly sandy loam
12 to 23 inches; gravelly sandy loam

Bedrock:
23 to 80 inches; bedrock

Mountain Park
Surface layer:
0 to 4 inches; gravelly sandy loam

Subsurface:
4 to 10 inches; gravelly sandy loam

Subsoil:
10 to 23 inches; gravelly sandy clay loam
23 to 32 inches; sandy loam

Bedrock:
32 to 46 inches; bedrock

Substratum:
46 to 55 inches; sandy loam saprolite

Bedrock:
55 to 80 inches; bedrock

Minor Components

- Louisa soils
- Cartecay soils
- Madison soils

Soil Properties and Qualities

Sweetapple
Available water capacity: Very low (about 2.7 inches)
Slowest saturated hydraulic conductivity: High (about 1.98 in/hr)
Drainage class: Somewhat excessively drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from mica schist and/or gneiss

Mountain Park
Available water capacity: Low (about 3.8 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from mica schist and/or gneiss

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Sweetapple
Prime farmland: Not prime farmland
Land capability class: 7e
Hydric soil: No

Mountain Park
Prime farmland: Not prime farmland
Land capability class: 7e
Hydric soil: No

TaD2—Tallapoosa-Badin-Fruithurst complex, 6 to 15 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Tallapoosa and similar soils: Typically 40 percent
Badin and similar soils: Typically 25 percent
Fruithurst and similar soils: Typically 25 percent

Typical Profile

Tallapoosa
Surface layer:
0 to 4 inches; gravelly loam

Subsurface:
4 to 8 inches; gravelly loam

Subsoil:
8 to 12 inches; clay loam
12 to 16 inches; clay loam

Bedrock:
16 to 80 inches; bedrock

Badin
Surface layer:
0 to 5 inches; loam

Subsoil:
5 to 14 inches; clay
14 to 20 inches; clay
20 to 28 inches; clay loam

Bedrock:
28 to 80 inches; bedrock

Fruithurst
Surface layer:
0 to 3 inches; gravelly loam

Subsurface:
3 to 7 inches; loam

Subsoil:
7 to 21 inches; clay loam
21 to 30 inches; silt loam

Bedrock:
30 to 80 inches; bedrock

Minor Components

- Chewacla soils
- Cartecay soils

Soil Properties and Qualities

Tallapoosa
Available water capacity: Very low (about 2.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from phyllite and sericite schist

Badin
Available water capacity: Low (about 4.9 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Parent material: Residuum weathered from phyllite and sericite schist

Fruithurst
Available water capacity: Low (about 5.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from phyllite and sericite schist

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Tallapoosa
Prime farmland: Not prime farmland
Land capability class: 6e
Hydric soil: No

Badin
Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

Fruithurst
Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

TfE2—Tallapoosa-Fruithurst complex, 15 to 40 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Tallapoosa and similar soils: Typically 60 percent
Fruithurst and similar soils: Typically 30 percent

Typical Profile

Tallapoosa
Surface layer:
0 to 4 inches; gravelly loam

Subsurface:
4 to 8 inches; gravelly loam

Subsoil:
8 to 12 inches; clay loam
12 to 16 inches; clay loam

Bedrock:
16 to 80 inches; bedrock

Fruithurst
Surface layer:
0 to 3 inches; gravelly loam

Subsurface:
3 to 7 inches; loam

Subsoil:
7 to 21 inches; clay loam
21 to 30 inches; silt loam

Bedrock:
30 to 80 inches; bedrock

Minor Components

- Cartecay soils

Soil Properties and Qualities

Tallapoosa
Available water capacity: Very low (about 2.7 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very high
Parent material: Residuum weathered from phyllite and sericite schist

Fruithurst
Available water capacity: Low (about 5.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very high
Parent material: Residuum weathered from phyllite and sericite schist

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Tallapoosa
Prime farmland: Not prime farmland
Land capability class: 7e
Hydric soil: No

Fruithurst
Prime farmland: Not prime farmland
Land capability class: 7e
Hydric soil: No

ToA—Toccoa fine sandy loam, 0 to 2 percent slopes, occasionally flooded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Flood plains (fig. 5)

Map Unit Composition

Toccoa and similar soils: Typically 80 percent

Typical Profile

Surface layer:
0 to 4 inches; fine sandy loam

Substratum:
4 to 28 inches; sandy loam
28 to 36 inches; sandy loam
36 to 43 inches; silt loam
43 to 80 inches; sandy loam

Minor Components

- Cartecay soils
- Wehadkee soils
- Shellbluff soils
- Wickham soils

Figure 5.—A flood plain along Hatchet Creek in an area of Toccoa fine sandy loam, 0 to 2 percent slopes, occasionally flooded. Hatchet Creek is a popular waterway for canoeists and kayakers because of its rapid flow in the spring. These rapid currents allow for coarser soil materials to be laid down during floods, which assists in the formation of the Toccoa soil.

Soil Properties and Qualities

Available water capacity: Moderate (about 6.6 inches)
Slowest saturated hydraulic conductivity: High (about 1.98 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: About 2.5 to 5.0 feet
Water table kind: Apparent
Flooding hazard: Occasional
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Very low
Parent material: Sandy and loamy alluvium

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Prime farmland in all areas
Land capability class: 2w
Hydric soil: No

TwD—Townley gravelly fine sandy loam, 6 to 15 percent slopes

Setting

Major land resource area: Southern Appalachian Ridges and Valleys (MLRA 128)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Townley and similar soils: Typically 85 percent

Typical Profile

Surface layer:
0 to 4 inches; gravelly fine sandy loam

Subsurface:
4 to 8 inches; fine sandy loam

Subsoil:
8 to 22 inches; channery clay
22 to 26 inches; channery silty clay loam

Bedrock:
26 to 80 inches; bedrock

Minor Components

- Montevallo soils
- Shellbluff soils
- Chewacla soils
- Locust soils

Soil Properties and Qualities

Available water capacity: Low (about 3.7 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Medium
Parent material: Residuum weathered from shale or interbedded sandstone and shale

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

TxE—Townley-Montevallo complex, 15 to 40 percent slopes

Setting

Major land resource area: Southern Appalachian Ridges and Valleys (MLRA 128)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Townley and similar soils: Typically 60 percent
Montevallo and similar soils: Typically 30 percent

Typical Profile

Surface layer:
0 to 4 inches; gravelly fine sandy loam

Subsurface:
4 to 8 inches; fine sandy loam

Subsoil:
8 to 22 inches; channery clay
22 to 26 inches; channery silty clay loam

Bedrock:
26 to 80 inches; bedrock

Montevallo
Surface layer:
0 to 4 inches; gravelly sandy loam

Subsurface:
4 to 8 inches; very gravelly sandy loam

Subsoil:
8 to 19 inches; extremely channery silty clay loam

Bedrock:
19 to 80 inches; channers

Minor Components

- Locust soils
- Chewacla soils
- Shellbluff soils

Soil Properties and Qualities

Available water capacity: Low (about 3.7 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: High
Parent material: Residuum weathered from shale or interbedded sandstone and shale

Montevallo
Available water capacity: Very low (about 2.2 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from shale or interbedded sandstone and shale

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Townley
Prime farmland: Not prime farmland
Land capability class: 7e
Hydric soil: No

Montevallo
Prime farmland: Not prime farmland
Land capability class: 7e
Hydric soil: No

W—Water

This map unit consists of areas that are covered with water throughout the year. Areas include rivers, streams, natural or constructed lakes, pits, and ponds.

WeC2—Wedowee gravelly sandy loam, 3 to 10 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Ridges
Position on the landform: Summits

Map Unit Composition

Wedowee and similar soils: Typically 85 percent

Typical Profile

Surface layer:
0 to 2 inches; gravelly sandy loam

Subsurface:
2 to 5 inches; sandy loam

Subsoil:
5 to 15 inches; clay

15 to 28 inches; clay
28 to 34 inches; sandy clay loam

Substratum:
34 to 50 inches; sandy loam saprolite
50 to 80 inches; sandy loam saprolite

Minor Components

- Pacolet soils
- Hard Labor soils

Soil Properties and Qualities

Available water capacity: Moderate (about 8.1 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Residuum weathered from felsic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading "Use and Management of the Soils" for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 3e
Hydric soil: No

WeD2—Wedowee gravelly sandy loam, 6 to 15 percent slopes, moderately eroded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Wedowee and similar soils: Typically 85 percent

Typical Profile

Surface layer:
0 to 2 inches; gravelly sandy loam

Subsurface:
2 to 5 inches; sandy loam

Subsoil:
5 to 15 inches; clay
15 to 28 inches; clay

28 to 34 inches; sandy clay loam

Substratum:
34 to 50 inches; sandy loam saprolite
50 to 80 inches; sandy loam saprolite

Minor Components

- Pacolet soils
- Hard Labor soils
- Louisburg soils
- Rion soils
- Cartecay soils

Soil Properties and Qualities

Available water capacity: Moderate (about 8.1 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from felsic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 4e
Hydric soil: No

WfE—Wedowee very gravelly sandy loam, 15 to 35 percent slopes

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Wedowee and similar soils: Typically 80 percent

Typical Profile

Surface layer:
0 to 2 inches; gravelly sandy loam

Subsurface:
2 to 5 inches; sandy loam

Subsoil:
5 to 15 inches; clay
15 to 28 inches; clay
28 to 34 inches; sandy clay loam

Substratum:
34 to 50 inches; sandy loam saprolite
50 to 80 inches; sandy loam saprolite

Minor Components

- Pacolet soils
- Rion soils
- Cartecay soils
- Louisburg soils

Soil Properties and Qualities

Available water capacity: Moderate (about 8.1 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: High
Parent material: Residuum weathered from felsic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 7e
Hydric soil: No

WhA—Wehadkee silt loam, 0 to 2 percent slopes, frequently flooded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Flood plains

Map Unit Composition

Wehadkee and similar soils: Typically 90 percent

Typical Profile

Surface layer:
0 to 4 inches; silt loam

Subsoil:
4 to 20 inches; loam

Substratum:
20 to 40 inches; sandy loam
40 to 80 inches; sandy loam

Minor Components

- Cartecay soils
- Chewacla soils

Soil Properties and Qualities

Available water capacity: Moderate (about 8.4 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.60 in/hr)
Drainage class: Poorly drained
Depth to seasonal water saturation: About 0 to 1.0 foot
Water table kind: Apparent
Flooding hazard: Frequent
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Negligible
Parent material: Loamy alluvium

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Not prime farmland
Land capability class: 6w
Hydric soil: Yes

WkB—Wickham sandy loam, 2 to 6 percent slopes, rarely flooded

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Stream terraces

Map Unit Composition

Wickham and similar soils: Typically 90 percent

Typical Profile

Surface layer:
0 to 10 inches; sandy loam

Subsoil:
10 to 20 inches; sandy clay loam
20 to 43 inches; sandy clay loam
43 to 58 inches; sandy loam
58 to 74 inches; fine sandy loam

Substratum:
74 to 80 inches; loamy fine sand

Minor Components

- Altavista soils
- Shellbluff soils

Soil Properties and Qualities

Available water capacity: Moderate (about 8.8 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: Rare
Ponding hazard: None
Shrink-swell potential: Low
Runoff class: Medium
Parent material: Loamy alluvium derived from igneous and sedimentary rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Prime farmland: Prime farmland in all areas
Land capability class: 2e
Hydric soil: No

WnE—Wynott-Wilkes complex, 15 to 45 percent slopes, very stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes
Position on the landform: Backslopes

Map Unit Composition

Wynott and similar soils: Typically 60 percent
Wilkes and similar soils: Typically 20 percent

Typical Profile

Wynott
Surface layer:
0 to 8 inches; gravelly sandy loam

Subsurface:
8 to 12 inches; gravelly sandy loam

Subsoil:
12 to 23 inches; clay
23 to 32 inches; clay
32 to 38 inches; clay loam

Bedrock:
38 to 80 inches; bedrock

Wilkes
Surface layer:
0 to 4 inches; gravelly sandy loam

Subsurface:
4 to 9 inches; gravelly sandy loam

Subsoil:
9 to 15 inches; clay

Bedrock:
15 to 80 inches; bedrock

Minor Components

- Chewacla soils
- Winnsboro soils
- Enon soils

Soil Properties and Qualities

Wynott
Available water capacity: Moderate (about 6.1 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: High
Runoff class: High
Parent material: Residuum weathered from mafic crystalline rock

Wilkes
Available water capacity: Very low (about 2.1 inches)
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: Moderate
Runoff class: Very high
Parent material: Residuum weathered from mafic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Wynott
Prime farmland: Not prime farmland
Land capability class: 7s
Hydric soil: No

Wilkes
Prime farmland: Not prime farmland
Land capability class: 7s
Hydric soil: No

WyD—Wynott-Winnsboro complex, 6 to 15 percent slopes, very stony

Setting

Major land resource area: Southern Piedmont (MLRA 136)
Landform: Hillslopes and ridges
Position on the landform: Backslopes and summits

Map Unit Composition

Wynott and similar soils: Typically 60 percent
Winnsboro and similar soils: Typically 20 percent

Typical Profile

Wynott
Surface layer:
0 to 8 inches; gravelly sandy loam

Subsurface:
8 to 12 inches; gravelly sandy loam

Subsoil:
12 to 23 inches; clay
23 to 32 inches; clay
32 to 38 inches; clay loam

Bedrock:
38 to 80 inches; bedrock

Winnsboro
Surface layer:
0 to 6 inches; very gravelly sandy loam

Subsurface:
6 to 12 inches; gravelly sandy clay loam

Subsoil:
12 to 32 inches; clay
32 to 40 inches; clay loam

Subsurface:
40 to 56 inches; sandy clay loam

Bedrock:
56 to 80 inches; bedrock

Minor Components

- Wilkes soils
- Chewacla soils
- Enon soils

Soil Properties and Qualities

Wynott
Available water capacity: Moderate (about 6.1 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None

Ponding hazard: None
Shrink-swell potential: High
Runoff class: High
Parent material: Residuum weathered from mafic crystalline rock

Winnsboro
Available water capacity: High (about 9.2 inches)
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Drainage class: Well drained
Depth to seasonal water saturation: More than 6.0 feet
Flooding hazard: None
Ponding hazard: None
Shrink-swell potential: High
Runoff class: High
Parent material: Residuum weathered from mafic crystalline rock

Use and Management Considerations

See the appropriate tables and the corresponding sections under the heading “Use and Management of the Soils” for the ratings and limitations of this map unit for various uses.

Interpretive Groups

Wynott
Prime farmland: Not prime farmland
Land capability class: 6s
Hydric soil: No

Winnsboro
Prime farmland: Not prime farmland
Land capability class: 6s
Hydric soil: No

Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help to prevent soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavioral characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis in predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as forestland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreational facilities; for agricultural waste management; and as wildlife habitat. It can be used to identify the potentials and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern in harmony with the natural soil.

Contractors can use this survey to locate sources of gravel, sand, reclamation material, roadfill, and topsoil. They can use it to identify areas where bedrock, wetness, or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

Interpretive Ratings

The interpretive tables in this survey rate the soils in the survey area for various uses. Many of the tables identify the limitations that affect specified uses and indicate the severity of those limitations. The ratings in these tables are both verbal and numerical.

Rating Class Terms

Rating classes are expressed in the tables in terms that indicate the extent to which the soils are limited by all of the soil features that affect a specified use or in terms that indicate the suitability of the soils for the use. Thus, the tables may show limitation classes or suitability classes. Terms for the limitation classes are *not limited, somewhat limited,* and *very limited*. The suitability ratings are expressed as *well suited, moderately suited, poorly suited,* and *unsuited* or as *good, fair,* and *poor*.

Numerical Ratings

Numerical ratings in the tables indicate the relative severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use and the point at which the soil feature is not a limitation. The limitations appear in order from the most limiting to the least limiting. Thus, if more than one limitation is identified, the most severe limitation is listed first and the least severe one is listed last.

Crops and Pasture

General management needed for crops and pasture is suggested in this section. The estimated yields of the main crops and pasture plants are listed, and the system of land capability classification used by the Natural Resources Conservation Service is explained.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under the heading “Detailed Soil Map Units.” Specific information can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Yields per Acre

The average yields per acre shown in tables 5a and 5b are those that can be expected of the principal crops under a high level of management. In any given year, yields may be higher or lower than those indicated in the tables because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the tables.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

For yields of irrigated crops, it is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

Pasture yields are expressed in terms of animal unit months. An animal unit month (AUM) is the amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the yields tables are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for forestland or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit (USDA, 1961).

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, *e, w, s,* or *c,* to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c,* used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w, s,* or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, wildlife habitat, or recreation.

Capability units are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, 2e-4 and 3e-6. These units are not given in all soil surveys.

The capability classification of the soils in this survey area is given in the section “Detailed Soil Map Units” and in the yields tables.

Prime Farmland and Other Important Farmlands

Table 6 lists the map units in the survey area that are considered prime farmland and farmland of statewide importance. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

About 19,878 acres in the survey area, or nearly 5 percent of the total acreage, meets the requirement for prime farmland. Scattered areas of this land are throughout the county.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

For some soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

In some areas, land that does not meet the criteria for prime or unique farmland is considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

Landscaping and Gardening

Kenneth M. Rogers, conservation agronomist (retired), Natural Resources Conservation Service, helped to prepare this section.

The soils in residential areas are used primarily as sites for homes, driveways, and streets. Remaining areas of each lot are commonly used for lawns, which enhance the appearance of the homes; as gardens for vegetables or flowers and shrubs; as orchards for fruits (fig. 6) and nuts; for recreational uses; as habitat for animals and birds; for trees, which provide shade and promote energy conservation; for vegetation and structures designed to abate noise, enhance privacy, and provide protection from the wind; and for septic tank absorption fields. Because the outdoor areas are used for several purposes, careful planning and a good understanding of the soils are important.

This section contains general soil-related information for landscaping and gardening. Other information may be obtained from the local office of the Cooperative Extension System, the Natural Resources Conservation Service, or private businesses that provide landscaping and related services. The amount of soil information needed for use in some areas is beyond the scope of this soil survey and requires more detail than that provided at the map scale used. Onsite investigation is needed in these areas.

Most of the soils in the residential areas in Coosa County have been disturbed to some degree during construction of houses, streets, driveways, and utility service. The construction involved cutting and filling, grading, and excavating. As a result, soil properties are more variable and less predictable than in undisturbed areas. Onsite examination is necessary in planning land use in disturbed areas.

Soils that have had the surface layer removed during grading and that are clayey or have dense layers in the subsoil are some of the poorest soils for plant growth. Tallapoosa and Louisa soils are among the most poorly suited to plant growth. The surface layer of these soils was removed during grading, which exposed a dense, firm subsoil that restricts root penetration, absorbs little rainfall, and causes excessive runoff. Incorporating organic matter into the soil improves tilth, increases the rate of water infiltration, and provides a more desirable rooting medium. Areas that are

Figure 6.—Blueberries in an area of Madison fine sandy loam, 6 to 15 percent slopes, moderately eroded.

subject to intensive foot traffic should be covered with gravel or a mulch, such as pine bark or wood chips.

Some soils, such as Wehadkee and other soils, are wet. The wetness limits the selection of plants to those that are tolerant of a high moisture content in the soil. Several methods can be used to minimize the effects of the wetness. In the more permeable soils, wetness can be reduced by underground tile drains, which lower the water table.

Some soils, such as Chewacla and Toccoa soils, are on flood plains. Most plants used for gardening and landscaping can be grown on these soils, but consideration should be given to the effects of floodwater. Surface drainage is a management concern because urban uses commonly result in increased rates of surface runoff, which increase the frequency and severity of flooding. Advice and assistance regarding drainage problems can be obtained from the Natural Resources Conservation Service, municipal and county engineering departments, and private engineering companies.

A limited depth to bedrock and rock fragments in the soil limit the kinds of plants that can be grown. Cutting and filing sometimes expose the bedrock and restrict the root zone. In areas of Tallapoosa soils, which are naturally shallow over bedrock, removal of any soil material decreases the depth of the root zone.

Some soils, such as Louisburg and Wilkes soils, have many rock fragments on the surface. The content of these fragments may increase as the depth increases. As the content of rock fragments increases, root growth is restricted and the available water capacity is reduced. In many disturbed areas, broken concrete, brick, and other debris are buried under soil material. In these areas, the soil generally is too shallow or has properties that are too poor to support many plants. Applications of topsoil generally are needed to provide an adequate rooting medium for plants, especially in areas used for landscape and gardening.

Natural fertility is low in most soils in Coosa County. Most of the soils are strongly acid or very strongly acid. The original surface layer contains the best nutrients and has the most favorable pH level for most plants. In many areas, the fertility of the soil can be improved by applications of lime and fertilizer. If the surface layer is removed during construction, the remaining soil is very acid and extremely low in available plant nutrients. Also, many nutrients are unavailable for plant growth in acid soil conditions. Disturbed soils generally need much larger amounts of lime and fertilizer, which should be applied according to the results of soil tests and the type of plants grown. Information on sampling for soil testing can be obtained from the Cooperative Extension System, the Natural Resources Conservation Service, and local nurseries.

In the following paragraphs, some of the plants that are used in landscaping and gardening and some management relationships between the plants and the soils are described. Information in this section should be supplemented by consultations with specialists at the Cooperative Extension System, the Natural Resources Conservation Service, or private landscaping and gardening businesses.

The grasses used for landscaping in Coosa County are mainly vegetatively propagated species, such as zoysiagrass, hybrid bermudagrass, and centipede grass, and seeded species, such as fescue, common bermudagrass, and centipede grass. The grasses commonly used for short-term cover include ryegrass, rye, wheat, sudangrass, and millet.

The vegetatively propagated plants are usually planted as sprigs, plugs, or sod. Additions of top soil may be needed before planting in some areas. Also, lime and fertilizer should be applied and incorporated into the soil. The plants should be placed in close contact with the soil, and the plantings should be watered to ensure the establishment of the root system. Centipede grass and certain strains of zoysiagrass are moderately shade tolerant; however, zoysiagrass normally requires more maintenance than centipede grass. The strains of hybrid bermudagrass are fast growing, but they are not as tolerant of shade as centipede grass or zoysiagrass.

Common perennial grasses that are established by seeding include fine leaf fescue for cool season lawns and common bermudagrass or centipede grass for warm season lawns. Lime and fertilizer should be applied and incorporated into the soil before seeding. Proper planting depth is important when grasses are established from seed.

Short-term vegetative cover is used to protect the soil at construction sites or to provide cover between the planting seasons of the desired grass species. The most commonly used grasses for short-term cover are ryegrass for cool seasons and sudangrass or millet for warm seasons. These species are annuals and die after the growing season. Periodic applications of lime and fertilizer are needed on all types of grasses. The kinds and amounts of lime and fertilizer to apply should be based on the results of soil tests.

Vines can be used to provide vegetative cover in moderately shaded areas and in steep areas that cannot be mowed. Ground ivy and periwinkle can be used for ground cover in these areas and in areas of rock outcrop or on walls and fences. All of these plants are propagated vegetatively, usually from potted plants or sprigs.

Mulches can be used for ground cover in areas where traffic is too heavy for grass cover, in areas where shrubs and flowers are used and additional ground cover is desired, and in densely shaded areas. Mulches provide effective ground cover. They also provide immediate cover for erosion control in areas where live vegetation is not desired. Effective mulches include pine straw, small-grain straw, hay, composted grass clippings, wood chips, pine bark, gravel, and several manufactured materials. The type of mulch to use depends to some extent on the hazard of erosion. Mulches also can be used to conserve soil moisture and to control weeds around trees, shrubs, and flowers.

Shrubs are used primarily to enhance the appearance of homesites. They also can be used to control traffic. They can be effective in dissipating the energy from raindrops and from runoff from roofs. Most native and adapted species add variety to residential settings. The effects of acidity and fertility levels vary greatly between shrub types.

Vegetable and flower gardens are important to many individuals and businesses. However, the soils in areas where homes and businesses are established may not be suited to vegetables and flowers. Soils that have been disturbed by construction may not be productive unless topsoil is applied. Soils that have a slope of more than 8 percent have poor potential for vegetable gardening because of the hazard of erosion if the soils are tilled. Generally, steeper soils have a thinner surface layer. Flower gardening is possible in steeper areas, however, if mulches are used to help control erosion. Incorporating composted tree leaves and grass clippings into the soil improves fertility, tilth, and moisture content. Additional information regarding vegetable crops is included under the heading “Crops and Pasture.”

Most garden plants grow best in soils that have a pH level between 5.5 and 6.5 and that have a high fertility level. Applying too much fertilizer or using fertilizers with the wrong combination of plant nutrients can be avoided by soil testing, which is the only effective method of determining the amount and kind of fertilizer that should be applied. Information regarding soil testing can be obtained from the local office of the Cooperative Extension System, the Natural Resources Conservation Service, or from a retail fertilizer business.

Trees are important in the landscaping of homesites. Information regarding the relationships between soils and trees is available in the section “Forestland Productivity and Management.” Special assistance regarding urban forestry can be obtained from the Alabama Forestry Commission.

Forestland Productivity and Management

The tables described in this section can help forest owners or managers plan the use of soils for wood crops. They show the potential productivity of the soils for wood crops and rate the soils according to the limitations that affect various aspects of forestland management.

Forestland Productivity

In table 7, the *potential productivity* of merchantable or *common trees* on a soil is expressed as a site index and as a volume number. The *site index* is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Commonly grown trees are those that forest managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability. More detailed information regarding site index is available in the “National Forestry Manual,” which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The *volume of wood fiber*, a number, is the yield likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

Trees to manage are those that are preferred for planting, seeding, or natural regeneration and those that remain in the stand after thinning or partial harvest.

Forestland Management

In tables 8a and 8b, interpretive ratings are given for various aspects of forestland management. The ratings are both verbal and numerical.

Some rating class terms indicate the degree to which the soils are suited to a specified aspect of forestland management. *Well suited* indicates that the soil has features that are favorable for the specified management aspect and has no limitations. Good performance can be expected, and little or no maintenance is needed. *Moderately suited* indicates that the soil has features that are moderately favorable for the specified management aspect. One or more soil properties are less than desirable, and fair performance can be expected. Some maintenance is needed. *Poorly suited* indicates that the soil has one or more properties that are unfavorable for the specified management aspect. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration. *Unsuited* indicates that the expected performance of the soil is unacceptable for the specified management aspect or that extreme measures are needed to overcome the undesirable soil properties.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

Rating class terms for seedling mortality are expressed as *low, moderate,* and *high*. Where these terms are used, the numerical ratings indicate gradations between the point at which the potential for seedling mortality is highest (1.00) and the point at which the potential is lowest (0.00).

The paragraphs that follow indicate the soil properties considered in rating the soils. More detailed information about the criteria used in the ratings is available in the “National Forestry Manual,” which is available in local offices of the Natural Resources Conservation Service or on the Internet.

For *limitations affecting construction of haul roads and log landings*, the ratings are based on slope, flooding, permafrost, plasticity index, the hazard of soil slippage, content of sand, the Unified classification, rock fragments on or below the surface, depth to a restrictive layer that is indurated, depth to a water table, and ponding. The limitations are described as slight, moderate, or severe. A rating of *slight* indicates that no significant limitations affect construction activities, *moderate* indicates that one or more limitations can cause some difficulty in construction, and *severe* indicates that one or more limitations can make construction very difficult or very costly.

Ratings in the column *soil rutting hazard* are based on depth to a water table, rock fragments on or below the surface, the Unified classification, depth to a restrictive layer, and slope. Ruts form as a result of the operation of forest equipment. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that the soil is subject to little or no rutting, *moderate* indicates that rutting is likely, and *severe* indicates that ruts form readily.

Ratings in the column *hazard of erosion on roads and trails* are based on the soil erosion factor K, slope, and content of rock fragments. The ratings apply to unsurfaced roads and trails. The hazard is described as slight, moderate, or severe. A rating of *slight* indicates that little or no erosion is likely; *moderate* indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and *severe* indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

Ratings in the column *suitability for roads (natural surface)* are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification, depth to a water table, ponding, flooding, and the hazard of soil slippage. The ratings indicate the suitability for using the natural surface of the soil for roads. The soils are described as well suited, moderately suited, or poorly suited to this use.

Ratings in the column *suitability for mechanical planting* are based on slope, depth to a restrictive layer, content of sand, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, moderately suited, poorly suited, or unsuited to these methods of planting. It is assumed that necessary site preparation is completed before seedlings are planted.

Ratings in the column *suitability for mechanical site preparation (surface)* are based on slope, depth to a restrictive layer, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsuited to this management activity. The part of the soil from the surface to a depth of about 1 foot is considered in the ratings.

Ratings in the column *suitability for mechanical site preparation (deep)* are based on slope, depth to a restrictive layer, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsuited to this management activity. The part of the soil from the surface to a depth of about 3 feet is considered in the ratings.

Ratings in the column *potential for seedling mortality* are based on flooding, ponding, depth to a water table, content of lime, reaction, salinity, available water capacity, soil moisture regime, soil temperature regime, aspect, and slope. The soils are described as having a low, moderate, or high potential for seedling mortality.

Recreational Development

The soils of the survey area are rated in tables 9a and 9b according to limitations that affect their suitability for recreational development. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in these tables can be supplemented by other information in this survey, for example, interpretations for dwellings without basements, for local roads and streets, and for septic tank absorption fields.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas. The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, saturated hydraulic conductivity (Ksat), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, saturated hydraulic conductivity (Ksat), and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, saturated hydraulic conductivity (Ksat), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, saturated hydraulic conductivity (Ksat), and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, saturated hydraulic conductivity (Ksat), and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, saturated hydraulic conductivity (Ksat), and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

Off-road motorcycle trails require little or no site preparation. They are not covered with surfacing material or vegetation. Considerable compaction of the soil material is likely. The ratings are based on the soil properties that influence erodibility, trafficability, dustiness, and the ease of revegetation. These properties are stoniness, slope, depth to a water table, ponding, flooding, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

Wildlife Habitat

Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water. Wildlife habitat can be created or improved by planting appropriate vegetation, by maintaining the existing plant cover, or by promoting the natural establishment of desirable plants.

In table 10, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

The potential of the soil is rated good, fair, poor, or very poor. A rating of *good* indicates that the element or kind of habitat is easily established, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected. A rating of *fair* indicates that the element or kind of habitat can be established, improved, or maintained in most places. Moderately intensive management is required for satisfactory results. A rating of *poor* indicates that limitations are severe for the designated element or kind of habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and must be intensive. A rating of *very poor* indicates that restrictions for the element or kind of habitat are very severe and that unsatisfactory results can be expected. Creating, improving, or maintaining habitat is impractical or impossible.

The elements of wildlife habitat are described in the following paragraphs.

Grain and seed crops are domestic grains and seed-producing herbaceous plants. Soil properties and features that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, slope, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of grain and seed crops are corn, wheat, oats, and barley.

Grasses and legumes are domestic perennial grasses and herbaceous legumes. Soil properties and features that affect the growth of grasses and legumes are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, flooding, and slope. Soil temperature and soil moisture also are considerations. Examples of grasses and legumes are fescue, lovegrass, bromegrass, clover, and alfalfa.

Wild herbaceous plants are native or naturally established grasses and forbs, including weeds. Soil properties and features that affect the growth of these plants are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of wild herbaceous plants are bluestem, goldenrod, beggarweed, wheatgrass, and grama.

Hardwood trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, and foliage. Soil properties and features that affect the growth of hardwood trees and shrubs are depth of the root zone, available water capacity, and wetness. Examples of these plants are oak, poplar, cherry, sweetgum, hawthorn, dogwood, hickory, blackberry, and blueberry. Examples of fruit-producing shrubs that are suitable for planting on soils rated *good* are Russian olive, autumn olive, and crabapple.

Coniferous plants furnish browse and seeds. Soil properties and features that affect the growth of coniferous trees, shrubs, and ground cover are depth of the root zone, available water capacity, and wetness. Examples of coniferous plants are pine, spruce, fir, cedar, and juniper.

Shrubs are bushy woody plants that produce fruit, buds, twigs, bark, and foliage. Soil properties and features that affect the growth of shrubs are depth of the root zone, available water capacity, salinity, and soil moisture. Examples of shrubs are mountain mahogany, bitterbrush, snowberry, big sagebrush, and native azalea (fig. 7).

Wetland plants are annual and perennial wild herbaceous plants that grow on moist or wet sites. Submerged or floating aquatic plants are excluded. Soil properties and features affecting wetland plants are texture of the surface layer, wetness, reaction, salinity, slope, and surface stoniness. Examples of wetland plants are smartweed, wild millet, wildrice, saltgrass, cordgrass, rushes, sedges, and reeds.

Shallow water areas have an average depth of less than 5 feet. Some are naturally wet areas. Others are created by dams, levees, or other water-control structures. Soil properties and features affecting shallow water areas are depth to bedrock, wetness, surface stoniness, slope, and saturated hydraulic conductivity (Ksat). Examples of shallow water areas are marshes, waterfowl feeding areas, and ponds.

Figure 7.—Native azaleas blooming in late March in an area of Madison-Louisa complex, 15 to 30 percent slopes, moderately eroded.

The habitat for various kinds of wildlife is described in the following paragraphs.

Habitat for openland wildlife consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. Wildlife attracted to these areas include bobwhite quail, pheasant, meadowlark, field sparrow, cottontail, and red fox.

Habitat for woodland wildlife consists of areas of deciduous and/or coniferous plants and associated grasses, legumes, and wild herbaceous plants. Prescribed burning (fig. 8) is very important for reducing the hazard of wildfires in established stands of timber and for promoting the growth of grasses and forbs that provide food or cover for a diversity of wildlife. Wildlife attracted to these areas include wild turkey, ruffed grouse, woodcock, thrushes, woodpeckers, squirrels, gray fox, raccoon, deer, and bear.

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas. Some of the wildlife attracted to such areas are ducks, geese, herons, shore birds, muskrat, mink, and beaver.

Figure 8.—Prescribed burning in an area of Madison-Louisa complex, 15 to 30 percent slopes, in a wildlife management area in the western part of Coosa County. This practice eliminates unwanted plant species and reduces the amount of organic matter, such as leaf litter, on the surface. This reduces the fuel for natural fires, which may be hard to contain in times of drought, and encourages the growth of grasses and forbs that provide food and cover for wildlife.

Hydric Soils

Table 11 lists the map unit components that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in “Soil Taxonomy” (Soil Survey Staff, 1999) and “Keys to Soil Taxonomy” (Soil Survey Staff, 2006) and in the “Soil Survey Manual” (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in “Field Indicators of Hydric Soils in the United States” (Hurt and others, 2002).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2B3). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
   A. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
   B. are poorly drained or very poorly drained and have either:
      1) a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
      2) a water table at a depth of 0.5 foot or less during the growing season if saturated hydraulic conductivity (Ksat) is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or
      3) a water table at a depth of 1.0 foot or less during the growing season if saturated hydraulic conductivity (Ksat) is less than 6.0 in/hr in any layer within a depth of 20 inches.
3. Soils that are frequently ponded for long or very long duration during the growing season.
4. Soils that are frequently flooded for long or very long duration during the growing season.

Engineering

This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. Ratings are given for building site development, sanitary facilities, construction materials, and water management. The ratings are based on observed performance of the soils and on the data in the tables described under the heading “Soil Properties.”

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The *information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.*

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, determinations were made about particle-size distribution, liquid limit, plasticity index, soil reaction, depth to bedrock, hardness of bedrock within 5 to 7 feet of the surface, soil wetness, depth to a water table, ponding, slope, likelihood of flooding, natural soil structure aggregation, and soil density. Data were collected about kinds of clay minerals, mineralogy of the sand and silt fractions, and the kinds of adsorbed cations. Estimates were made for erodibility, saturated hydraulic conductivity (Ksat), corrosivity, shrink-swell potential, available water capacity, and other behavioral characteristics affecting engineering uses.

This information can be used to evaluate the potential of areas for residential, commercial, industrial, and recreational uses; make preliminary estimates of construction conditions; evaluate alternative routes for roads, streets, highways, pipelines, and underground cables; evaluate alternative sites for sanitary landfills, septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of gravel, sand, reclamation material, roadfill, and topsoil; plan structures for water management; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey, can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Tables 12a and 12b show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction;

depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Sanitary Facilities

Tables 13a and 13b show the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 72 inches or between a depth of 24 inches and a restrictive layer is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Saturated hydraulic conductivity (Ksat), depth to a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, saturated hydraulic conductivity (Ksat), depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Saturated hydraulic conductivity (Ksat) is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a Ksat rate of more than 14 micrometers per second are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

A *trench sanitary landfill* is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include saturated hydraulic conductivity (Ksat), depth to bedrock or a cemented pan, depth to a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

In an *area sanitary landfill*, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, saturated hydraulic conductivity (Ksat), depth to a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If the downward movement of water through the soil profile is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.

Construction Materials

Tables 14a and 14b give information about the soils as potential sources of gravel, sand, reclamation material, roadfill, and topsoil. Normal compaction, minor processing, and other standard construction practices are assumed.

Gravel and *sand* are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In table 14a, only the likelihood of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the bottom layer of the soil contains sand or gravel, the soil is considered a likely source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

The soils are rated *good, fair,* or *poor* as potential sources of sand and gravel. A rating of *good* or *fair* means that the source material is likely to be in or below the soil. The bottom layer and the thickest layer of the soils are assigned numerical ratings. These ratings indicate the likelihood that the layer is a source of sand or gravel. The number 0.00 indicates that the layer is a poor source. The number 1.00 indicates that the layer is a good source. A number between 0.00 and 1.00 indicates the degree to which the layer is a likely source.

In table 14b, the rating class terms are *good, fair,* and *poor*. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of reclamation material, roadfill, and topsoil. The lower the number, the greater the limitation.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Water Management

Table 15 gives information on the soil properties and site features that affect water management. The degree and kind of soil limitations are given for pond reservoir areas; embankments, dikes, and levees; and aquifer-fed excavated ponds. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the saturated hydraulic conductivity (Ksat) of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. Embankments that have zoned construction (core and shell) are not considered. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of 5 or 6 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects trafficability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Soil Properties

Data relating to soil properties are collected during the course of the soil survey.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine particle-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help to characterize key soils.

The estimates of soil properties are shown in tables. They include engineering properties, physical and chemical properties, and pertinent soil and water features.

Engineering Properties

Table 16 gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. “Loam,” for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, “gravelly.” Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination.

Physical Soil Properties

Table 17 shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In the table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In the table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In the table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (Ksat), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at $^1/_3$- or $^1/_{10}$-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity (Ksat) refers to the ability of a soil to transmit water or air. The estimates in the table indicate the rate of water movement, in micrometers per second, when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (Ksat) is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at $^1/_3$- or $^1/_{10}$-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In the table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Chemical Soil Properties

Table 18 shows estimates of some chemical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. The ability to retain cations reduces the hazard of ground-water pollution.

Effective cation-exchange capacity refers to the sum of exchangeable cations plus aluminum expressed in terms of milliequivalents per 100 grams of soil. It is determined for soils that have pH of less than 5.5.

Soil reaction is a measure of acidity or alkalinity. The pH of each soil horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Water Features

Table 19 gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

The *months* in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. The table indicates, by month, depth to the top (*upper limit*) and base (*lower limit*) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. The table indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Soil Features

Table 20 gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness and thickness of the restrictive layer, both of which significantly affect the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, saturated hydraulic conductivity (Ksat), content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low, moderate,* or *high,* is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low, moderate,* or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999 and 2006). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Ultisol.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udult (*Ud*, meaning humid, plus *ult*, from Ultisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludults (*Hapl*, meaning minimal horizonation, plus *udult*, the suborder of the Ultisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludults.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, mixed, semiactive, thermic Typic Hapludults.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

Table 21 indicates the order, suborder, great group, subgroup, and family of the soil series in the survey area.

Soil Series and Their Morphology

In this section, each soil series recognized in the survey area is described. Characteristics of the soil and the material in which it formed are identified for each series. A pedon, a small three-dimensional area of soil, that is typical of the series in the survey area is described. The detailed description of each soil horizon follows standards in the “Soil Survey Manual” (Soil Survey Division Staff, 1993) and in the “Field Book for Describing and Sampling Soils” (Schoeneberger and others, 2002). Many of the technical terms used in the descriptions are defined in “Soil Taxonomy” (Soil Survey Staff, 1999) and in “Keys to Soil Taxonomy” (Soil Survey Staff, 2006). Unless otherwise indicated, colors in the descriptions are for moist soil. Following the pedon description is the range of important characteristics of the soils in the series.

Alcovy Series

Depth class: Very deep
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Parent material: Valley fill over residuum weathered from felsic crystalline rock
Landscape: Piedmont
Landform: Toeslopes
Landform position: Smooth and slightly concave slopes
Slope: 2 to 6 percent
Taxonomic class: Fine-loamy, siliceous, thermic, Oxyaquic Kanhapludults

Commonly Associated Soils

- Cecil and Pacolet soils, which are in the higher ridge positions and are well drained
- Wedowee soils, which are in the higher side slope positions and on ridges and are well drained
- Soils that are in the lower positions and have low chroma depletions higher in the profile

Typical Pedon

Alcovy sandy loam, 2 to 6 percent slopes; in Coosa County, Alabama, about 1.5 miles north of Crewsville; 2,500 feet south and 700 feet west of the northeast corner of section 22, T. 22 N., R. 19 E.; USGS Rockford topographic quadrangle; lat. 32 degrees 58 minutes N. and long. 86 degrees 08 minutes 58 seconds W.

Ap—0 to 6 inches; brown (10YR 4/3) sandy loam; weak fine granular structure; very friable; many fine, medium, and coarse roots: about 10 percent quartz gravel; strongly acid; clear smooth boundary.

Bt1—6 to 21 inches; yellowish brown (10YR 5/6) sandy clay loam; moderate medium subangular blocky structure; firm; common fine and medium roots; few distinct clay films on faces of peds; about 5 percent ironstone gravel; very strongly acid; clear smooth boundary.

Bt2—21 to 28 inches; about 60 percent yellowish brown (10YR 5/6) and about 40 percent strong brown (7.5YR 4/6) sandy clay loam; coarse moderate subangular blocky structure; firm; common fine and medium roots; few distinct clay films on faces of peds; strongly acid; clear wavy boundary.

Bt3—28 to 36 inches; about 60 percent yellowish brown (10YR 5/6) and about 40 percent very pale brown (10YR 8/4) clay loam; coarse moderate subangular blocky structure; compact in place; few fine roots; few distinct clay films on faces of peds; few fine mica flakes; strongly acid; irregular wavy boundary.

Btx—36 to 55 inches; about 50 percent olive yellow (2.5Y 6/8) and about 30 percent red (2.5YR 5/8) sandy clay loam; strong fine platy structure; very firm; compact and brittle in 40 percent of mass; common prominent clay films on faces of peds; light gray (5Y 7/1) iron depletions; strongly acid; clear wavy boundary.

C—55 to 80 inches; about 40 percent olive yellow (2.5Y 6/8), about 30 percent light gray (5Y 7/1), and about 30 percent red (2.5YR 5/8) sandy clay loam; massive; firm; strongly acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Depth to bedrock: More than 6.0 feet
Content of mica flakes: Few or common
Content and size of rock fragments: 0 to 10 percent in the A and Bt horizons; quartz and ironstone fragments
Reaction: Very strongly acid or strongly acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 3 or 4
Texture—loamy sand or sandy loam

Bt horizon:
Color—hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 4 to 8
Texture—sandy loam or sandy clay loam
Redoximorphic features—masses of oxidized iron in shades of red, brown, and yellow

Btx horizon:
Color—hue of 10YR, value of 5, and chroma of 6 or 8; or variegated in shades of red, olive yellow, and light gray
Texture—sandy loam or sandy clay loam

C or Cd horizon:
Color—2.5YR to 10YR, value of 4 to 6, and chroma of 1 to 8; or variegated in similar colors
Texture—sandy loam, sandy clay loam, sandy clay, clay loam, or clay

Allen Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Alluvium, colluvium, or residuum weathered from sandstone and shale
Landscape: Sand Mountain Appalachian Plateau
Landform: Hillslopes and high terraces
Landform position: Footslopes and smooth slopes on terraces
Slope: 2 to 10 percent
Taxonomic class: Fine-loamy, siliceous, semiactive, thermic Typic Paleudults

Commonly Associated Soils

- Decatur soils, which are in the higher ridge positions and have a clayey control section weathered from limestone
- Locust soils, which are in the lower terrace and toeslope positions and are moderately well drained
- Shellbluff soils, which are in the lower flood plain positions and are moderately well drained
- Townley soils, which are in the higher side slope positions and are moderately deep to shale bedrock

Typical Pedon

Allen gravelly sandy loam, 2 to 10 percent slopes, moderately eroded; in Coosa County, Alabama, about 2.0 miles north of Mt. Olive; 600 feet south and 1,800 feet west of the northeast corner of section 2, T. 24 N., R. 19 E.; USGS Hollins topographic quadrangle; lat. 33 degrees 06 minutes 15 seconds N. and long. 86 degrees 08 minutes 25 seconds W.

Ap—0 to 3 inches; brown (7.5YR 4/4) gravelly sandy loam; weak fine granular structure; very friable; many fine, medium, and coarse roots; about 15 percent ironstone gravel; strongly acid; clear smooth boundary.

Bt1—3 to 7 inches; yellowish red (5YR 5/6) gravelly sandy clay loam; weak fine subangular blocky structure; firm; common fine and medium roots; few distinct clay films on faces of peds; about 15 percent ironstone gravel; very strongly acid; clear smooth boundary.

Bt2—7 to 18 inches; red (2.5YR 4/8) sandy clay loam; weak moderate subangular blocky structure; firm; common fine and medium roots; few distinct clay films on faces of peds; about 10 percent ironstone gravel; strongly acid; clear smooth boundary.

Bt3—18 to 36 inches; red (2.5YR 4/8) sandy clay loam; common medium distinct strong brown (7.5YR 5/8) mottles; moderate medium subangular blocky structure; firm; common fine roots; few distinct clay films on faces of peds; about 10 percent chert gravel; strongly acid; clear smooth boundary.

Bt4—36 to 80 inches; about 40 percent strong brown (7.5Y 5/8), about 30 percent yellowish red (5YR 4/6), and about 30 percent red (2.5YR 4/8) gravelly clay loam; moderate medium subangular blocky structure; firm; common prominent clay films on faces of peds; about 25 percent chert gravel; strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to bedrock: More than 6.0 feet
Content of mica flakes: Few fine to medium
Content and size of rock fragments: 10 to 25 percent throughout; ironstone, chert, and sandstone gravel
Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 3 or 4
Texture—loamy sand or sandy loam

Bt horizon (upper part):
Color—hue of 2.5YR or 5YR, value of 5 or 6, and chroma of 6 or 8
Texture—loam, sandy clay loam, or clay loam

Bt horizon (lower part):
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 6 or 8; or variegated in shades of red and brown
Texture—loam, sandy clay loam, or clay loam
Mottles—in shade of brown, yellow, and red

Altavista Series

Depth class: Very deep
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)

Parent material: Loamy alluvium
Landscape: Piedmont
Landform: Stream terraces
Landform position: Smooth slopes at the heads of drains
Slope: 2 to 6 percent
Taxonomic class: Fine-loamy, mixed, semiactive, thermic Aquic Hapludults

Commonly Associated Soils

- The somewhat poorly drained Cartecay and Chewacla soils in the lower flood plain positions
- The well drained Toccoa soils, which are in the higher levee positions and are sandy

Typical Pedon

Altavista fine sandy loam, 2 to 6 percent slopes, rarely flooded; in Coosa County, Alabama, about 2.5 miles east of Goodwater; 2,400 feet north and 600 feet west of the southeast corner of section 24, T. 24 N., R. 20 E.; USGS Goodwater topographic quadrangle; lat. 33 degrees 03 minutes 10 seconds N. and long. 86 degrees 00 minutes 37 seconds W.

Oe—0 to 2 inches; partially decomposed forest litter.

Ap—2 to 7 inches; yellowish brown (10YR 5/4) fine sandy loam; weak fine granular structure; very friable; common fine and medium roots; moderately acid; clear wavy boundary.

Bt1—7 to 11 inches; yellowish brown (10YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable; common fine and medium roots; moderately acid; clear wavy boundary.

Bt2—11 to 27 inches; olive yellow (2.5Y 6/6) clay loam; moderate medium subangular blocky structure; friable; few fine and medium roots; common faint clay films on faces of peds; light yellowish brown (2.5Y 6/4) iron depletions; common distinct yellowish brown (10YR 5/6, 5/8) masses of oxidized iron; strongly acid; gradual wavy boundary.

Bt3—27 to 40 inches; olive yellow (2.5Y 6/6) clay loam; moderate medium subangular blocky structure; friable; common distinct clay films on faces of peds; light brownish gray (10YR 6/2) iron depletions; yellowish brown (10YR 5/6) and brownish yellow (10YR 6/8) masses of oxidized iron; strongly acid; gradual wavy boundary.

BC—40 to 52 inches; olive yellow (2.5Y 6/6) sandy clay loam; weak fine subangular blocky structure; friable; common distinct light gray (2.5Y 7/2) iron depletions; very strongly acid; clear wavy boundary.

C—52 to 80 inches; light gray (2.5Y 7/2) stratified sandy loam and sandy clay loam; massive; friable; common distinct olive yellow (2.5Y 6/6) masses of oxidized iron; very strongly acid.

Range in Characteristics

Thickness of the solum: 30 to more than 60 inches
Depth to contrasting soil material: More than 60 inches
Depth to bedrock: More than 60 inches
Content and size of rock fragments: 0 to 15 percent; mostly gravel
Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied

Ap or A horizon:
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 1 to 4
Texture—sandy loam or fine sandy loam

BE horizon (where present):
Color—hue of 7.5YR to 2.5Y, value of 5 to 7, and chroma of 4 to 8
Texture—sandy loam, loam, or sandy clay loam

Bt horizon:
Color—hue of 7.5YR to 2.5Y, value of 5 to 7, and chroma of 3 to 8
Texture—sandy loam, sandy clay loam, or clay loam
Redoximorphic features (where present)—iron depletions in shades of yellow, brown, and gray and masses of oxidized iron in shades of yellow, brown, and red

C horizon:
Color—variegated in shades of yellow, red, brown, and gray
Texture—variable; commonly stratified sandy loam to sandy clay

Badin Series

Depth class: Moderately deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Parent material: Residuum weathered from phyllite and sericite schist
Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits and shoulders
Slope: 2 to 10 percent
Taxonomic class: Fine, mixed, semiactive, thermic Typic Hapludults

Commonly Associated Soils

- The fine-loamy Fruithurst soils, which are in positions similar to those of the Badin soils and are moderately deep
- Tallapoosa soils, which are in the higher positions on shoulders and are shallow to bedrock
- Tatum soils, which are in similar positions to those of the Badin soils and are deep to bedrock

Typical Pedon

Badin loam, in an area of Badin-Tatum-Tallapoosa complex, 2 to 6 percent slopes, moderately eroded; in Tallapoosa County, Alabama, about 0.9 mile northeast of Goldville; 1,600 feet north and 200 feet east of the southwest corner of section 5, T. 24 N., R. 23 E.; USGS New Site topographic quadrangle; lat. 33 degrees 05 minutes 39 seconds N. and long. 85 degrees 46 minutes 36 seconds W.

Ap—0 to 5 inches; reddish brown (5YR 4/4) loam; moderate medium granular structure; friable; many fine, medium, and coarse roots; strongly acid; clear wavy boundary.
Bt1—5 to 14 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; common fine and medium roots; common clay films on faces of peds; strongly acid; gradual wavy boundary.
Bt2—14 to 20 inches; red (2.5YR 4/8) clay; moderate medium subangular blocky structure; friable; common fine and medium roots; common medium distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.
Bt/C—20 to 28 inches; red (2.5YR 4/8) clay loam (Bt part); weak coarse subangular blocky structure; friable; few fine roots; common very fine flakes of mica; discontinuous, diagonally oriented strata of weathered phyllite that crushes to loam (C part); firm; very strongly acid; clear irregular boundary.

Cr—28 to 80 inches; highly weathered phyllite; platy rock structure, tilted diagonally.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to bedrock: 20 to 40 inches
Content of rock fragments: 0 to 15 percent in the solum
Reaction: Very strongly acid or strongly acid throughout, except where lime has been applied

Ap horizon:
Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 3 to 8
Texture—loam

BA or BE horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 4 or 5, and chroma of 3 to 8
Texture—loam or silt loam

Bt horizon:
Color—hue of 2.5YR or 5YR, value of 4 to 6, and chroma of 4 to 8
Texture—silty clay, silty clay loam, clay loam, or clay

C horizon (where present):
Color—variegated in shades of yellow, brown, and red
Texture—silty clay loam or silt loam

Cr layer:
Type of bedrock—weathered sericite schist or phyllite

Bethlehem Series

Depth class: Moderately deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from mica schist
Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits, backslopes, and shoulders
Slope: 6 to 15 percent
Taxonomic class: Fine, kaolinitic, thermic Typic Kanhapludults

Commonly Associated Soils

- Madison soils, which are in positions similar to those of the Bethlehem soils and are very deep to bedrock
- Grover soils, which are in the higher ridge positions and have micaceous mineralogy
- Louisa soils, which are in shoulder positions and are shallow to bedrock

Typical Pedon

Bethlehem gravelly sandy loam, in an area of Bethlehem-Madison complex, 6 to 15 percent slopes, moderately eroded; in Coosa County, Alabama, about 2.0 miles southeast of Mt. Olive; 1,800 feet south and 800 feet west of the northeast corner of section 13, T. 24 N., R. 19 E.; USGS Goodwater topographic quadrangle; lat. 33 degrees 04 minutes 30 seconds N. and long. 86 degrees 07 minutes 30 seconds W.

Ap—0 to 4 inches; brown (7.5YR 4/4) gravelly sandy loam; weak medium granular structure; very friable; many fine, medium, and coarse roots; few fine mica flakes; about 20 percent gravel; strongly acid; abrupt wavy boundary.

Bt1—4 to 12 inches; red (2.5YR 4/6) clay; weak medium subangular blocky structure; firm; common fine and medium roots; common distinct clay films on faces of peds; common mica flakes; about 5 percent gravel; very strongly acid; gradual wavy boundary.

Bt2—12 to 24 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; firm; few fine and medium roots; common distinct clay films on faces of peds; common fine mica flakes; about 10 percent gravel; strongly acid; irregular wavy boundary.

Bt/Cr—24 to 30 inches; red (2.5YR 5/6) clay; moderate medium subangular blocky structure; firm; few fine roots; common distinct clay films on faces of peds; common fine mica flakes (Bt part); moderately fractured, weathered mica schist (Cr part); gradual wavy boundary.

Cr—30 to 80 inches; moderately fractured, weathered mica schist.

Range in Characteristics

Thickness of the solum: 20 to 40 inches

Depth to bedrock: Soft bedrock at a depth of 20 to 40 inches; hard bedrock at a depth of more than 40 inches

Content of mica flakes: Few or common in the A and upper B horizons; few to many in the lower B and C horizons

Content and size of rock fragments: 10 to 20 percent throughout; quartz gravel

Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied

Ap or A horizon:

Color—hue of 5YR to 10YR, value of 3 to 5, and chroma of 3 to 6

Texture (fine-earth fraction)—fine sandy loam, sandy loam, or loam

E horizon (where present):

Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 or 6

Texture (fine-earth fraction)—fine sandy loam, sandy loam, loam, or sandy clay loam

BA or BE horizon (where present):

Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 6 or 8

Texture (fine-earth fraction)—sandy clay loam, clay loam, or loam

Bt horizon:

Color—hue of 2.5YR or 5YR, value of 4 or 5, and chroma of 6 or 8

Texture (fine-earth fraction)—sandy clay, clay loam, or sandy clay

C horizon (where present):

Color—variegated in shades of yellow, brown, and red

Texture—sandy loam, loam, or clay loam saprolite

Cr horizon:

Type of bedrock—weathered high-grade metamorphic rock, such as sillimanite schist, phyllite schist, or mica schist

Cartecay Series

Depth class: Very deep

Drainage class: Somewhat poorly drained

Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)

Parent material: Loamy alluvium

Landscape: Piedmont
Landform: Flood plains
Landform position: Smooth or slightly concave slopes
Slope: 0 to 1 percent
Taxonomic class: Coarse-loamy, mixed, semiactive, nonacid, thermic Aquic Udifluvents

Commonly Associated Soils

- Altavista soils, which are in the higher positions at the heads of drains and are moderately well drained
- The somewhat poorly drained Chewacla soils in the lower positions and on the more level parts of the slope
- The fine-loamy Toccoa soils, which are in positions similar to those of the Cartecay soils and are well drained
- The poorly drained Wehadkee soils in the lower positions
- Wickham soils, which are in the higher terrace positions and are well drained

Typical Pedon

Cartecay loam, in an area of Chewacla, Cartecay, and Toccoa soils, 0 to 1 percent slopes, frequently flooded; in Tallapoosa County, Alabama, about 3.7 miles southwest of Walnut Hill; 500 feet south and 1,300 feet west of the northeast corner of section 2, T. 19 N., R. 22 E.; USGS Ponders topographic quadrangle; lat. 32 degrees 39 minutes 54 seconds N. and long. 85 degrees 49 minutes 15 seconds W.

Ap—0 to 3 inches; dark brown (7.5YR 3/4) loam; moderate medium granular structure; very friable; many fine, medium, and coarse roots; few fine and very fine flakes of mica; strongly acid; clear smooth boundary.
C1—3 to 13 inches; brown (7.5YR 4/4) fine sandy loam; massive; very friable; many fine, medium, and coarse roots; few fine and very fine flakes of mica; strongly acid; clear wavy boundary.
C2—13 to 18 inches; strong brown (7.5YR 4/6) fine sandy loam; massive; very friable; common fine and medium roots; faint pressure faces; common medium faint dark brown (7.5YR 3/3) stains; few fine and very fine flakes of mica; thin strata of loamy sand; strongly acid; clear wavy boundary.
C3—18 to 32 inches; brown (7.5YR 4/3) fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; common medium distinct grayish brown (10YR 5/2) iron depletions; common medium distinct yellowish brown (10YR 5/4) masses of oxidized iron; common fine soft black masses; common fine and very fine flakes of mica; strongly acid; clear wavy boundary.
Cg1—32 to 47 inches; grayish brown (10YR 5/2) gravelly fine sandy loam; massive; friable; many medium distinct dark yellowish brown (10YR 4/4) and common medium distinct yellowish brown (10YR 5.6) masses of oxidized iron; common fine soft black masses; common fine and very fine flakes of mica; 25 percent rounded gravel; strongly acid; clear wavy boundary.
Cg2—47 to 80 inches; grayish brown (2.5Y 5/2) fine sandy loam; massive; friable; common fine and very fine flakes of mica; strongly acid.

Range in Characteristics

Depth to contrasting soil material: More than 60 inches
Depth to bedrock: More than 60 inches
Content and size of rock fragments: 0 to 10 percent; mostly rounded gravel
Content of mica flakes: Few to many throughout the profile
Reaction: Very strongly acid to slightly acid throughout, except where lime has been applied

Ap or A horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4
Texture—sandy loam, fine sandy loam, loam, or silt loam

C horizon:
Color—hue of 5YR to 10YR, value of 4 to 8, and chroma of 3 to 6; or variegated in shades of yellow, brown, red, and gray
Texture—coarse sandy loam, sandy loam, fine sandy loam, loam, silt loam, or loamy sand with thin strata of coarser or finer material
Redoximorphic features—iron depletions in shades of brown and gray within 20 inches of the soil surface and masses of oxidized iron in shades of brown and red

Cg horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 1 or 2; or variegated in shades of red, brown, and gray
Texture—fine sandy loam, sandy clay loam, loam, silt loam, sand, or loamy sand
Redoximorphic features—masses of oxidized iron in shades of brown and red

Cecil Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from felsic crystalline rock
Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits and side slopes
Slope: 2 to 10 percent
Taxonomic class: Fine, kaolinitic, thermic Typic Kanhapludults

Commonly Associated Soils

- Alcovy soils, which are in the lower toeslope positions, are moderately well drained, and have a fragipan
- Hard Labor soils, which are in the lower toeslope positions and are moderately well drained
- Madison and Pacolet soils, which are in the lower positions on shoulders or side slopes and have a thinner solum than the Cecil soils
- Rion soils, which are in the lower side slope positions and are fine-loamy
- Sweetapple soils, which are in the lower steep side slope positions and lack an argillic horizon

Typical Pedon

Cecil sandy loam, 2 to 6 percent slopes, moderately eroded; in Tallapoosa County, Alabama, about 2.7 miles northwest of Hackneyville; 350 feet south and 1,700 feet west of the northeast corner of section 9, T. 24 N., R. 21 E.; USGS Hackneyville topographic quadrangle; lat. 33 degrees 05 minutes 21 seconds N. and long. 85 degrees 57 minutes 45 seconds W.

Ap—0 to 4 inches; brown (7.5YR 4/4) sandy loam; weak fine granular structure; very friable; common fine, medium, and coarse roots; about 5 percent gravel; strongly acid; clear smooth boundary.

Bt1—4 to 12 inches; red (2.5YR 5/6) clay loam; weak medium subangular blocky structure; firm; common fine and medium roots; common faint red (2.5YR 4/6) clay films on faces of peds; strongly acid; gradual smooth boundary.

Bt2—12 to 27 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; firm; few fine and medium roots; common faint clay films on faces of peds; very strongly acid; gradual wavy boundary.
Bt3—27 to 39 inches; red (2.5YR 4/6) clay; common medium distinct strong brown (7.5YR 5/6) mottles; moderate medium subangular blocky structure; firm; few faint clay films on faces of peds; very strongly acid; gradual wavy boundary.
Bt4—39 to 50 inches; red (2.5YR 4/8) clay loam; common medium distinct strong brown (7.5YR 5/6) mottles; moderate medium subangular blocky structure; friable; common distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.
BC—50 to 64 inches; red (2.5YR 4/6) clay loam; common medium distinct strong brown (7.5YR 5/6) mottles; weak coarse subangular blocky structure; friable; common fine flakes of feldspar; very strongly acid; gradual wavy boundary.
C—64 to 80 inches; variegated sandy loam saprolite weathered from diorite gneiss; massive; friable; common fine flakes of feldspar; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches
Depth to bedrock: More than 60 inches
Content of rock fragments: 0 to 10 percent
Reaction: Very strongly acid to moderately acid in the A horizon and very strongly acid or strongly acid in the B and C horizons, except where lime has been applied

Ap or A horizon:
Color—hue of 2.5YR to 10YR, value of 3 to 5, and chroma of 2 to 8
Texture—sandy loam, fine sandy loam, or loam

E horizon (where present):
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 8
Texture—sandy loam, fine sandy loam, or loam

BA or BE horizon (where present):
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 3 to 8
Texture—sandy clay loam, clay loam, or loam

Bt horizon:
Color—hue of 10R or 2.5YR, value of 4 or 5, and chroma 6 or 8
Texture—sandy clay, clay loam, or clay
Mottles—shades of red, yellow, and brown

BC horizon:
Color—hue of 10R to 5YR, value of 4 to 6, and chroma of 4 to 8
Texture—sandy clay loam, clay loam, or loam
Mottles—shades of yellow and brown

C horizon:
Color—variegated in shades of red, brown, and yellow
Texture—loamy saprolite from highly weathered gneiss or schist

Chewacla Series

Depth class: Very deep
Drainage class: Somewhat poorly drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Loamy alluvium

Landscape: Piedmont
Landform: Flood plains
Landform position: Smooth or slightly convex slopes
Slope: 0 to 1 percent
Taxonomic class: Fine-loamy, mixed, active, thermic Fluvaquentic Dystrudepts

Commonly Associated Soils

- Altavista soils, which are in the higher positions at the heads of drains and are moderately well drained
- The somewhat poorly drained Cartecay soils in the more level, lower positions
- The fine-loamy Toccoa soils, which are in positions similar to those of the Chewacla soils
- The poorly drained Wehadkee soils in the lower positions
- Wickham soils, which are in the higher terrace positions and are well drained

Typical Pedon

Chewacla silty clay loam, in an area of Chewacla, Cartecay, Toccoa soils, 0 to 1 percent slopes, frequently flooded; in Tallapoosa County, Alabama, about 1.3 miles southeast of Zana on Emuckfaw Creek; 800 feet south and 700 feet east of the northwest corner of section 6, T. 23 N., R. 24 E.; USGS Daviston topographic quadrangle; lat. 33. degrees 00 minutes 58 seconds N. and long. 85 degrees 41 minutes 42 seconds W.

Ap1—0 to 2 inches; dark grayish brown (10YR 4/2) silty clay loam; weak medium granular structure; friable; many fine and medium roots; common fine flakes of mica; many fine distinct strong brown (7.5YR 5/6) irregular shaped masses of oxidized iron throughout; strongly acid; clear smooth boundary.

Ap2—2 to 6 inches; grayish brown (10YR 5/2) silty clay loam; weak medium subangular blocky structure parting to moderate medium granular; friable; many fine and very fine roots; common fine flakes of mica; few fine soft black masses; many fine distinct strong brown (7.5YR 5/6) and few fine prominent yellowish red (5YR 4/6) irregular shaped masses of oxidized iron throughout; strongly acid; clear smooth boundary.

Bw1—6 to 12 inches; yellowish red (5YR 4/6) silty clay loam; weak medium subangular blocky structure; friable; common fine and medium roots; common fine flakes of mica; few fine soft black masses; common medium distinct grayish brown (2.5Y 5/2) irregular shaped iron depletions throughout; strongly acid; gradual wavy boundary.

Bw2—12 to 20 inches; reddish brown (5YR 4/4) silty clay loam; weak medium subangular blocky structure; friable; common fine and medium roots; common fine flakes of mica; many fine distinct grayish brown (2.5Y 5/2) irregular shaped iron depletions throughout; very strongly acid; clear wavy boundary.

Ab—20 to 27 inches; brown (10YR 4/3) loam; weak fine medium subangular blocky structure; friable; common fine and very fine roots; common fine flakes of mica; common fine soft black masses; many medium distinct gray (10YR 5/1) irregular shaped iron depletions throughout; strongly acid; clear wavy boundary.

Bw3—27 to 38 inches; yellowish brown (10YR 5/6) clay loam; weak medium subangular blocky structure; friable; few very fine roots; common fine flakes of mica; common fine distinct light gray (10YR 6/1) irregular shaped iron depletions throughout; strongly acid; gradual wavy boundary.

Bw4—38 to 53 inches; yellowish brown (10YR 5/6) clay loam; weak medium subangular blocky structure; friable; many fine flakes of mica; common fine and medium distinct strong brown (7.5YR 4/6) irregular shaped masses of oxidized iron throughout; moderately acid; clear wavy boundary.

C—53 to 80 inches; light olive brown (2.5Y 5/4) silt loam; massive; friable; many fine flakes of mica; common fine distinct light gray (10YR 6/1) irregular shaped iron depletions throughout; many fine distinct yellowish brown (10YR 5/6) and common fine and medium distinct strong brown (7.5YR 5/6) irregular shaped masses of oxidized iron throughout; moderately acid.

Range in Characteristics

Thickness of the solum: 20 to more than 60 inches
Depth to contrasting soil material: More than 60 inches
Depth to bedrock: More than 60 inches
Content and size of rock fragments: 0 to 10 percent; mostly gravel
Reaction: Very strongly acid to slightly acid throughout, except where lime has been applied

Ap or A horizon:
Color—hue of 5YR to 10YR, value of 3 to 5, and chroma of 1 to 4
Texture—silt loam or silty clay loam

Ab horizon (where present):
Color—hue of 10YR or 2.5Y, value of 2 to 5, and chroma of 1 or 2
Texture—sandy loam, fine sandy loam, loam, silt loam, or clay loam

Bw horizon:
Color—hue of 5YR to 2.5Y, value of 4 to 7, and chroma of 3 to 8
Texture—loam, sandy clay loam, silt loam, or silty clay loam
Redoximorphic features—iron depletions in shades of brown and gray and masses of oxidized iron in shades of brown and red

C horizon:
Color—hue of 7.5YR to 2.5Y, value of 4 or 5, and chroma of 2 to 4
Texture—variable below 40 inches; ranging from sandy loam to clay
Redoximorphic features (where present)—iron depletions in shades of brown, yellow, olive, and gray and masses of oxidized iron in shade of red, yellow, and brown

Cg horizon (where present):
Color—hue of 10YR, value of 4 or 5, and chroma of 0 to 2
Texture—variable; commonly sandy loam to clay with strata of finer or coarser textured material

Davidson Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from mixed felsic and mafic crystalline rock
Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits and smooth backslopes
Slope: 2 to 15 percent
Taxonomic class: Fine, kaolinitic, thermic Rhodic Kandiudults

Commonly Associated Soils

- Cecil soils, which are in similar ridge positions and are not rhodic
- Enon soils, which are in the lower ridge positions and are Alfisols with mixed mineralogy in the control section

- Madison soils, which are on steep side slope positions and are not rhodic
- Mecklenburg soils, which are in positions similar to those of the Davidson soils and are Alfisols with mixed mineralogy in the control section

Typical Pedon

Davidson clay loam, 6 to 15 percent slopes, severely eroded; in Coosa County, Alabama, about 1.5 miles north of Goodwater; 1,200 feet north and 400 feet west of the southeast corner of section 4, T. 24 N., R. 20 E.; USGS Goodwater topographic quadrangle; lat. 33 degrees 06 minutes 15 seconds N. and long. 86 degrees 03 minutes 45 seconds W.

Ap—0 to 5 inches; dark reddish brown (5YR 3/3) clay loam; weak medium subangular blocky structure; friable; common fine and medium roots: moderately acid; abrupt smooth boundary.

Bt1—5 to 10 inches; dark red (2.5YR 3/4) clay; moderate medium subangular blocky structure; firm; few fine and medium roots: common faint clay films on faces of peds; about 5 percent greenstone fragments; strongly acid; gradual wavy boundary.

Bt2—10 to 30 inches; dark red (2.5YR 3/4) clay; moderate medium subangular blocky structure; firm; common fine and medium roots; common clay films on faces of peds; about 10 percent fragments of greenstone and quartz; very strongly acid: gradual wavy boundary.

Bt3—30 to 51 inches; dark red (2.5YR 3/6) clay; moderate coarse subangular blocky structure; firm; common clay films on faces of peds; few very fine flakes of mica; very strongly acid: gradual wavy boundary.

Bt4—51 to 80 inches; dark red (2.5YR 3/6) clay; moderate medium subangular blocky structure; firm; common clay films on faces of peds: few very fine flakes of mica: very strongly acid.

Range in Characteristics

Thickness of the solum: More than 60 inches
Depth to bedrock: More than 6.0 feet
Content and size of rock fragments: 5 to 10 percent throughout; gravel
Reaction: Very strongly acid to slightly acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 2.5YR or 5YR, value of 2 or 3, and chroma of 2 to 6
Texture—loam, sandy clay loam, or clay loam

Bt horizon:
Color—hue of 10R or 2.5YR, value of 3, and chroma of 4 or 6
Texture—clay or clay loam
Mottles—shades of red, brown, and yellow

Decatur Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Valley fill and residuum weathered from limestone
Landscape: Limestone Valleys and Uplands
Landform: Interfluves of paleoterraces
Landform position: Smooth and slightly convex slopes

Slope: 2 to 6 percent
Taxonomic class: Fine, kaolinitic, thermic Rhodic Paleudults

Commonly Associated Soils

- Allen soils, which are in the lower footslope positions and are fine-loamy
- Locust soils, which are in the lower toeslope and terrace positions and are moderately well drained
- Shellbluff soils, which are in the lower flood plain positions and are moderately well drained

Typical Pedon

Decatur silt loam, 2 to 6 percent slopes; in Coosa County, Alabama, about 0.5 mile west of Marble Valley; 1,800 feet east and 500 feet north of the southwest corner of section 23, T. 24 N., R. 2 E.; USGS Talladega Springs topographic quadrangle; lat. 33 degrees 03 minutes 30 seconds N. and long. 86 degrees 27 minutes 10 seconds W.

A—0 to 6 inches; dark reddish brown (5YR 3/4) silt loam; moderate medium granular structure; friable; common fine medium roots; about 10 percent fine angular quartz gravel; moderately acid; clear smooth boundary.
Bt1—6 to 11 inches; dusky red (2.5YR 3/4) silty clay loam; weak medium subangular blocky structure; firm; common fine and medium roots; 5 percent angular quartz gravel; strongly acid; gradual smooth boundary.
Bt2—11 to 60 inches; dark red (2.5YR 3/6) silty clay loam; moderate medium subangular blocky structure; firm; few fine and medium roots; common faint clay films on faces of peds; moderately acid; gradual wavy boundary.
Bt3—60 to 80 inches; dark red (2.5YR 3/6) clay loam; moderate medium subangular blocky structure; firm; few thin clay films on faces of peds; moderately acid.

Range in Characteristics

Thickness of the solum: 60 to 80 inches
Depth to bedrock: More than 60 inches
Content of rock fragments: 0 to 10 percent throughout
Reaction: Very strongly acid to moderately acid throughout

Ap horizon:
Color—hue of 2.5YR or 5YR, value of 2 or 3, and chroma of 2 to 4
Texture—silt loam, silty clay loam, or loam

BA horizon (where present):
Color—hue of 2.5YR or 5YR, value of 2 or 3, and chroma of 2 to 4
Texture—silt loam or silty clay loam

Bt horizon:
Color—hue of 10R or 2.5YR, value of 3, and chroma 4 or 6
Texture—silty clay loam, silty clay, or clay; clay loam below 60 inches in some pedons

Enon Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Parent material: Residuum weathered from mafic crystalline rock
Landscape: Piedmont
Landform: Ridges
Landform position: Smooth summits and side slopes

Slope: 2 to 6 percent
Taxonomic class: Fine, mixed, active, thermic Ultic Hapludalfs

Commonly Associated Soils

- Davidson soils, which are in the higher positions and have a red subsoil
- Mecklenburg soils, which are in the higher positions and have a red subsoil
- Wilkes soils, which are in the higher positions on shoulders and are shallow to bedrock
- Winnsboro soils, which are in the higher positions on shoulders and are deep to bedrock
- Wynott soils, which are on the lower, narrow ridges and are moderately deep to bedrock

Typical Pedon

Enon very gravelly sandy loam, in an area of Enon-Wynott complex, 2 to 6 percent slopes; in Tallapoosa County, Alabama, about 0.9 mile northeast of Barnesville; 1,500 feet north and 1,600 feet west of the southeast corner of section 13, T. 20 N., R. 22 E.; USGS Ponders topographic quadrangle; lat. 32 degrees 42 minutes 54 seconds N. and long. 85 degrees 48 minutes 19 seconds W.

A—0 to 4 inches; dark brown (10YR 3/3) very gravelly sandy loam; weak fine granular structure; very friable; common fine, medium, and coarse roots; 45 percent angular gravel; 5 percent cobbles; slightly acid; clear wavy boundary.

BE—4 to 12 inches; light olive brown (2.5Y 5/4) gravelly sandy clay loam; moderate medium granular structure; very friable; common fine and medium roots; 30 percent angular gravel; 5 percent cobbles; slightly acid; clear wavy boundary.

Bt1—12 to 25 inches; brownish yellowish (10YR 6/8) clay; moderate medium subangular blocky structure; firm; common fine and medium and few coarse roots; common clay films on faces of peds; many fine black concretions; slightly acid; gradual wavy boundary.

Bt2—25 to 50 inches; brownish yellow (10YR 6/8) clay; strong medium subangular blocky structure; firm; common fine and medium and few coarse roots; common clay films on faces of peds; many fine and medium black concretions; slightly acid; gradual wavy boundary.

C—50 to 80 inches; brownish yellow (10YR 6/8) loam saprolite; massive; friable; slightly acid.

Range in Characteristics

Thickness of the solum: 20 to 50 inches
Depth to bedrock: More than 60 inches
Content and size of rock fragments: 0 to 50 percent in the A, E, and BE horizons and 0 to 35 percent in the B horizon; mostly gravel or cobbles
Reaction: Strongly acid to neutral throughout, except where lime has been applied

Ap or A horizon:
Color—hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 4
Texture—fine sandy loam, sandy loam, or loam

E horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 2 to 6
Texture—fine sandy loam, sandy loam, or loam

BA or BE horizon (where present):
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 8
Texture—loam, clay loam, or sandy clay loam

Bt horizon:
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 4 to 8
Texture—clay or clay loam

BC horizon (where present):
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 4 to 8
Texture—sandy clay loam, clay loam, or loam

C horizon:
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma 3 to 8; or variegated in shades of brown and yellow
Texture—variable; sandy loam, loam, or silt loam saprolite

Fruithurst Series

Depth class: Moderately deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from phyllite and sericite schist
Landscape: Piedmont
Landform: Narrow ridges and hillslopes
Landform position: Knolls and side slopes
Slope: 3 to 40 percent
Taxonomic class: Fine-loamy, mixed, semiactive, thermic Typic Hapludults

Commonly Associated Soils

- Badin soils, which are in positions similar to those of the Fruithurst soils and are clayey
- Tallapoosa soils, which are in the higher positions on shoulders and are shallow to bedrock
- Tatum soils, which are in the more level positions and are deep to bedrock

Typical Pedon

Fruithurst gravelly loam, in an area of Badin-Tallapoosa-Fruithurst complex, 3 to 10 percent slopes; in Tallapoosa County, Alabama, about 6.1 miles southwest of Dadeville; 950 feet south and 1,150 feet east of the northwest corner of section 27, T. 21 N., R. 22 E.; USGS Dadeville topographic quadrangle; lat. 32 degrees 46 minutes 49 seconds N. and long. 85 degrees 50 minutes 41 seconds W.

Ap—0 to 3 inches; yellowish brown (10YR 5/4) gravelly loam; weak fine granular structure; friable; many fine, medium, and coarse roots; 20 percent angular gravel; strongly acid; clear wavy boundary.

BE—3 to 7 inches; light brown (7.5YR 6/4) loam; moderate medium granular structure; friable; common fine and medium roots; 10 percent angular gravel; strongly acid; gradual wavy boundary.

Bt1—7 to 21 inches; yellowish red (5YR 4/6) clay loam; moderate medium subangular blocky structure; friable; common fine and medium roots; common distinct clay films on faces of peds; 10 percent angular gravel; very strongly acid; gradual wavy boundary.

Bt2—21 to 30 inches; yellowish red (5YR 5/6) silt loam; weak medium subangular blocky structure; friable; few fine roots; common distinct clay films on faces of peds; common very fine flakes of mica; 10 percent angular gravel; very strongly acid; clear irregular boundary.

Cr—30 to 60 inches; highly weathered, tilted sericite schist; platy rock structure, tilted almost vertically.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to bedrock: Soft bedrock at a depth of 20 to 40 inches and hard bedrock at a depth of more than 60 inches
Content and size of rock fragments: 5 to 35 percent in the A and E horizons; mostly gravel or cobbles
Reaction: Very strongly acid or strongly acid throughout, except where lime has been applied

Ap horizon:
Color—hue of 7.5YR or 10YR, value of 2 to 5, and chroma of 2 to 4
Texture—fine sandy loam, loam, or silt loam

BA or BE horizon (where present):
Color—hue of 7.5YR or 10YR, value of 5 or 6, and chroma of 3 or 4
Texture—fine sandy loam, silt loam, or loam

Bt horizon:
Color—hue of 5YR to 10YR, value of 4 or 5, and chroma of 4 or 6
Texture—loam, silt loam, or clay loam

C horizon (where present):
Color—variegated in shades of yellow, brown, and red
Texture—loam or silt loam

Cr layer:
Type of bedrock—weathered sericite schist or phyllite

Grover Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from biotite gneiss and schist
Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits and backslopes
Slope: 6 to 15 percent
Taxonomic class: Fine-loamy, micaceous, thermic Typic Hapludults

Commonly Associated Soils

- Bethlehem soils, which are in positions similar to those of the Grover soils and have a clayey control section
- Louisburg soils, which are in the lower side slope positions and have mixed mineralogy
- Madison soils, which are in positions similar to those of the Grover soils and have a clayey control section
- Pacolet soils, which are in the lower side slope positions and have a clayey control section
- Wedowee soils, which are in positions similar to those of the Grover soils and have a clayey, brown control section

Typical Pedon

Grover sandy loam, 6 to 15 percent slopes; in Coosa County, Alabama, about 1.0 mile north of Hissop; 1,000 feet north and 1,200 feet west of the southeast corner of section 10, T. 22 N., R. 19 E.; USGS Rockford topographic quadrangle; lat. 32 degrees 53 minutes 25 seconds N. and long. 86 degrees 09 minutes 21.86 seconds W.

Ap—0 to 5 inches; brown (7.5YR 4/4) sandy loam; weak fine granular structure; friable; many very fine, fine, and medium roots and common coarse roots; strongly acid; clear smooth boundary.

Bt1—5 to 23 inches; yellowish red (5YR 5/8) clay loam; moderate medium subangular blocky structure; firm; many medium and common coarse roots; common distinct clay films on faces of peds; common fine and very fine flakes of mica; strongly acid; clear irregular boundary.

Bt2—23 to 34 inches; yellowish red (5YR 5/6) loam; weak medium subangular blocky structure; friable; common fine and medium roots; common distinct clay films on faces of peds; many fine and very fine flakes of mica; about 10 percent parachanners; very strongly acid; clear smooth boundary.

C1—34 to 50 inches; red (2.5YR 5/6) sandy loam saprolite from weathered biotite gneiss; massive; few fine and medium roots; many fine and coarse flakes of mica; very strongly acid; gradual wavy boundary.

C2—50 to 80 inches; yellowish red (7.5YR 5/6) and red (2.5YR 5/6) sandy loam saprolite from weathered biotite gneiss; massive; many fine and coarse flakes of mica; very strongly acid.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to bedrock: More than 6.0 feet
Content of mica flakes: Common to many throughout the profile
Content and size of rock fragments: 0 to 10 percent throughout; parachanners of biotite gneiss
Reaction: Very strongly acid to slightly acid, except where lime has been applied

Ap or A horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 6
Texture—fine sandy loam, sandy loam, or loam

BA or BE horizon (where present):
Color—hue of 5YR or 7.5YR, value of 4 to 6, and chroma of 4 to 8
Texture—fine sandy loam, sandy loam, or loam,

Bt horizon:
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 4 to 8
Texture—sandy clay loam, clay loam, or loam

C horizon:
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8; or variegated in shades of yellow, brown, and red
Texture—sandy loam or loam saprolite

Hard Labor Series

Depth class: Very deep
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Parent material: Residuum weathered from felsic crystalline rock
Landscape: Piedmont
Landform: Hillslopes
Landform position: Footslopes and toeslopes

Slope: 2 to 10 percent
Taxonomic class: Fine, kaolinitic, thermic Oxyaquic Kanhapludults

Commonly Associated Soils

- Cecil soils, which are in the higher positions on ridges and are well drained
- Pacolet soils, which are in the lower positions on shoulders and side slopes and have a thinner solum
- Wedowee soils, which are in the higher side slope and ridge positions and are well drained

Typical Pedon

Hard Labor loamy sand, 2 to 6 percent slopes; in Tallapoosa County, Alabama, about 1.1 miles northeast of Camp Hill; 300 feet south and 2,100 feet west of the northeast corner of section 15, T. 21 N., R. 24 E.; USGS Camp Hill topographic quadrangle; lat. 32 degrees 48 minutes 50 seconds N. and long. 85 degrees 38 minutes 04 seconds W.

Ap1—0 to 2 inches; very dark grayish brown (10YR 3/2) loamy sand; weak fine granular structure; very friable; many very fine and fine roots; about 5 percent gravel; moderately acid; clear smooth boundary.

Ap2—2 to 9 inches; brown (10YR 5/3) loamy sand; weak fine granular structure; very friable; many very fine and fine roots; about 5 percent gravel; moderately acid; clear smooth boundary.

E—9 to 15 inches; light yellowish brown (10YR 6/4) loamy sand; weak fine granular structure; very friable; common very fine and fine roots; strongly acid; clear wavy boundary.

Bt1—15 to 27 inches; strong brown (7.5YR 5/6) clay; moderate medium subangular blocky structure; friable; common very fine and fine roots; common faint clay films on faces of peds; very strongly acid; clear smooth boundary.

Bt2—27 to 45 inches; yellowish red (5YR 5/6) clay; moderate medium subangular blocky structure; friable; common very fine and fine roots; common distinct clay films on faces of peds; very strongly acid; clear wavy boundary.

BC—45 to 52 inches; strong brown (7.5YR 5/8) sandy clay loam; weak medium subangular blocky structure; friable; common very fine and fine roots; light yellowish brown (10YR 6/4) and light gray (10YR 7/1) iron depletions; common medium distinct red (2.5YR 4/6) masses of oxidized iron; very strongly acid; clear irregular boundary.

C—52 to 80 inches; variegated sandy clay loam saprolite weathered from granite gneiss; massive; friable; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to more than 60 inches
Depth to bedrock: More than 60 inches
Content of rock fragments: 0 to 10 percent
Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied

Ap horizon:
Color—hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 6
Texture—loamy sand, coarse sandy loam, or sandy loam

E horizon:
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 6
Texture—loamy sand or sandy loam

BA or BE (where present):
Color—hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 3 to 8
Texture—sandy loam or sandy clay loam

Bt horizon:
Color—hue of 5YR to 10YR, value of 4 to 6, and chroma 3 to 8
Texture—sandy clay, clay loam, or clay
Redoximorphic features—iron depletions in shades of gray below a depth of 30 inches and masses of oxidized iron in shades of red, yellow, and brown

BC horizon:
Color—hue of 2.5YR to 2.5Y, value of 4 to 7, and chroma of 3 to 8; or variegated in shades of red, yellow, brown, and gray
Texture—sandy clay loam, clay loam, or sandy clay

C horizon:
Color—variegated in shades of red, brown, yellow, and gray
Texture—loamy saprolite

Locust Series

Depth class: Very deep
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Parent material: Colluvium and alluvium weathered from shale
Landscape: Sand Mountain Appalachian Plateau
Landform: Toeslopes and stream terraces
Landform position: Smooth to convex slopes
Slope: 2 to 6 percent
Taxonomic class: Fine-loamy, mixed, semiactive, thermic Glossic Fragiudults

Commonly Associated Soils

- Allen soils, which are in the higher footslope positions and are well drained
- Decatur soils, which are in the higher ridge positions, are well drained, and have a clayey control section weathered from limestone
- Shellbluff soils, which are in the lower flood plain positions and lack an argillic horizon
- Townley soils, which are in the higher side slope positions and are moderately deep to shale bedrock

Typical Pedon

Locust fine sandy loam, 2 to 6 percent slopes; in Coosa County, Alabama, about 0.5 miles north of Blue Springs; 2,000 feet north and 600 feet west of the southeast corner of section 9, T. 24 N., R. 2 E.; Talladega Springs topographic quadrangle; lat. 33 degrees 04 minutes 40 seconds N. and long. 86 degrees 28 minutes 50 seconds W.

Ap—0 to 6 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak fine granular structure; very friable; many fine and medium roots: about 10 percent fine quartz gravel; moderately acid; clear smooth boundary.
BE—6 to 12 inches; brownish yellow (10YR 6/6) gravelly sandy loam; weak fine granular structure: friable; common fine roots; moderately acid: gradual wavy boundary.
Bt1—12 to 24 inches; yellowish brown (10YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable; common fine and medium roots; few distinct clay films on faces of peds; moderately acid; gradual wavy boundary.

Bt2—24 to 31 inches; strong brown (7.5YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable: common fine roots; faint clay films on faces of peds; few fine distinct pale brown (10YR 6/3) iron depletions; common medium distinct red (2.5YR 4/6) masses of oxidized iron; moderately acid; gradual wavy boundary.

Btx—31 to 62 inches; about 40 percent strong brown (7.5YR 4/6), about 30 percent yellowish red (5YR 4/6), and about 30 percent light brownish gray (10YR 6/2) loam; weak coarse polyhedrons parting to moderate medium subangular blocky structure; firm; compact and brittle in 60 percent of mass; patchy clay films on faces of peds; pale brown loam on outside face of the brown and red polyhedrons; strongly acid; gradual wavy boundary.

C—62 to 80 inches; about 40 percent strong brown (7.5YR 4/6), about 30 percent yellowish red (5YR 4/6), and about 30 percent light brownish gray (10YR 6/2) channery clay loam; massive; about 15 percent chert and shale channers; very strongly acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Depth to bedrock: More than 6.0 feet
Content and size of rock fragments: 0 to 10 percent throughout; 15 to 25 percent in the C horizon in some pedons
Reaction: Very strongly acid to strongly acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 1 to 4
Texture—loam, fine sandy loam or silt loam

BE horizon:
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 4 to 8
Texture—sandy loam or silt loam

Bt horizon:
Color—hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 4 or 6
Texture—fine sandy loam or sandy clay loam

Btx horizon:
Color—variegated in shades of red, strong brown, yellowish brown, and gray
Texture—loam, sandy loam, or clay loam

C horizon:
Color—variegated in shades of red, strong brown, brownish yellow, and gray
Texture—channery clay loam, sandy loam, or loam

Louisa Series

Depth class: Shallow
Drainage class: Somewhat excessively drained
Slowest saturated hydraulic conductivity: High (about 1.98 in/hr)
Parent material: Residuum weathered from mica schist and gneiss
Landscape: Piedmont
Landform: Hillslopes and escarpments
Landform position: Shoulders and backslopes
Slope: 15 to 50 percent
Taxonomic class: Loamy, micaceous, thermic, shallow Typic Dystrudepts

Commonly Associated Soils

- Bethlehem soils, which are in the higher ridge positions and are moderately deep to bedrock
- Louisburg soils, which are in the lower positions on side slopes and are very deep to bedrock
- Madison soils, which are in the lower positions on side slopes and broad ridges, have a well developed solum, and are very deep to bedrock
- Mountain Park soils, which are in the more level positions and are moderately deep to bedrock
- Tallapoosa soils, which are in similar positions to those of the Louisa soils and are clayey

Typical Pedon

Louisa loam, in an area of Louisa-Mountain Park complex, 30 to 50 percent slopes; in Tallapoosa County, Alabama, about 2.1 miles northeast of Zana; 800 feet east and 2,500 feet north of the southwest corner of section 19, T. 24 N., R. 24 E.; USGS New Site topographic quadrangle; lat. 33 degrees 03 minutes 17 seconds N. and long. 85 degrees 41 minutes 42 seconds W.

A—0 to 3 inches; brown (10YR 4/3) loam; moderate medium granular structure; friable; many fine, medium, and coarse roots; common fine flakes of mica; about 10 percent gravel; moderately acid; clear wavy boundary.

Bw1—3 to 10 inches; strong brown (7.5YR 5/6) loam; weak medium subangular blocky structure; friable; common fine and medium roots; many fine and medium flakes of mica; about 5 percent gravel; strongly acid; clear irregular boundary.

Bw2—10 to 17 inches; yellowish red (5YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable; many fine and medium roots; many fine and medium flakes of mica; about 4 percent gravel; very strongly acid; clear irregular boundary.

Cr—17 to 60 inches; highly weathered mica schist that has varying degrees of hardness; tilted diagonally.

Range in Characteristics

Thickness of the solum: 10 to 20 inches

Depth to bedrock: Soft bedrock at a depth of 10 to 20 inches and hard bedrock at a depth of 60 to more than 120 inches

Content of mica flakes: Common or many throughout

Content of rock fragments: 5 to 25 percent in the B horizon and 5 to 60 percent in the C horizon

Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied

A or Ap horizon:

Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 4

Texture—loam, fine sandy loam, or sandy loam

Bw horizon:

Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 3 to 8

Texture—sandy loam, loam, or sandy clay loam or their gravelly modifiers

Bt horizon (where present):

Color—hue of 10R to 5YR, value of 4 to 6, and chroma of 3 to 8

Texture—sandy loam, loam, or clay loam

C horizon (where present):
Color—variegated in shades of yellow and brown
Texture—loam or sandy loam saprolite or their gravelly modifiers

Cr layer:
Type of bedrock—weathered mica schist and gneiss with varying degrees of hardness

Louisburg Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from granodiorite gneiss
Landscape: Piedmont
Landform: Hillslopes
Landform position: Summits and backslopes
Slope: 6 to 35 percent
Taxonomic class: Coarse-loamy, mixed, semiactive, thermic Typic Hapludults

Commonly Associated Soils

- Grover soils, which are in the higher ridge positions and are very deep to bedrock
- Louisa soils, which are in the higher shoulder positions and are shallow to bedrock
- The fine-loamy Rion soils, which are in the lower side slope positions
- Wedowee soils, which are in the lower side slope positions and have a fine control section

Typical Pedon

Louisburg gravelly sandy loam, in an area of Louisburg-Rion-Rock outcrop complex, 15 to 35 percent slopes, very stony; in Tallapoosa County, Alabama, about 2.9 miles south of Our Town; 750 feet north and 800 feet west of the southeast corner of section 21, T. 21 N., R. 21 E.; USGS Our Town topographic quadrangle; lat. 32 degrees 47 minutes 10 seconds N. and long. 85 degrees 57 minutes 30 seconds W.

Ap—0 to 8 inches; dark yellowish brown (2.5Y 4/2) gravelly sandy loam; weak medium granular structure; very friable; common fine, medium, and coarse roots; about 15 percent gravel and 5 percent cobbles; strongly acid; clear wavy boundary.

E—8 to 15 inches; pale brown (10YR 6/3) gravelly sandy loam; weak fine subangular blocky structure; very friable; common fine, medium, and coarse roots; 15 percent gravel and 5 percent cobbles; strongly acid; clear wavy boundary.

Bt1—15 to 21 inches; yellowish brown (10YR 5/6) sandy loam; common fine faint brownish yellow (10YR 6/6) mottles; weak medium subangular blocky structure; very friable; common fine and medium roots; sand grains bridged and coated with clay; strongly acid; gradual wavy boundary.

Bt2—21 to 35 inches; strong brown (7.5YR 5/6) sandy loam; weak medium subangular blocky structure; friable; few fine and medium roots; sand grains bridged and coated with clay; strongly acid; clear irregular boundary.

C/Bt—35 to 64 inches; 70 percent pale brown (10YR 7/4) sandy loam saprolite (C part); massive; very friable; 30 percent strong brown (7.5YR 5/6) sandy clay loam (B part); weak fine subangular blocky structure; friable; very strongly acid.

Cr—64 to 80 inches; weathered, moderately fractured granodioritic gneiss.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to bedrock: More than 60 inches
Content of rock fragments: 0 to 35 percent
Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied

Ap horizon:
Color—hue of 10YR or 2.5Y, value of 3 to 5, and chroma of 2 to 4
Texture—loamy sand or sandy loam

E horizon:
Color—hue of 10YR or 2.5Y, value of 3 to 6, and chroma of 2 to 4
Texture—sandy loam, loamy sand, or loamy coarse sand

Bt horizon:
Color—hue of 5YR to 10YR, value of 4 to 7, and chroma 4 to 8
Texture—sandy loam, coarse sandy loam, loam, or thin subhorizons of sandy clay loam

C horizon:
Color—variegated in shades of yellow, brown, and red
Texture—sandy loam saprolite weathered from felsic and metamorphic rock

Cr layer:
Type of bedrock—weathered granodioritic gneiss

Madison Series

Depth class: Moderately deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from mica schist
Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits and backslopes
Slope: 2 to 30 percent
Taxonomic class: Fine, kaolinitic, thermic Typic Kanhapludults

Commonly Associated Soils

- Davidson soils, which are in positions similar to those of the Madison soils and have a thicker solum
- Bethlehem soils, which are in positions similar to those of the Madison soils and are moderately deep to bedrock
- Cecil soils, which are in positions similar to those of the Madison soils and have less mica
- Grover soils, which are in the higher ridge positions and have micaceous mineralogy
- Louisa soils, which are on shoulders and are shallow to bedrock
- Shellbluff soils, which are in flood plain positions and are moderately well drained

Typical Pedon

Madison fine sandy loam, in an area of Madison-Louisa complex, 15 to 30 percent slopes, moderately eroded; in Tallapoosa County, Alabama, about 1.2 miles north of Zana; 1,100 feet south and 1,700 feet west of the northeast corner of section 26, T. 24

N., R. 23 E.; USGS Daviston topographic quadrangle; lat. 33 degrees 02 minutes 40 seconds N. and long. 85 degrees 43 minutes 11 seconds W.

Ap—0 to 4 inches; dark brown (7.5YR 4/4) fine sandy loam; moderate medium granular structure; very friable; many fine, medium, and coarse roots; few fine flakes of mica; about 5 percent gravel; strongly acid; clear wavy boundary.

BE—4 to 10 inches; yellowish red (5YR 5/6) sandy clay loam; few medium distinct brown (7.5YR 5/4) mottles; moderate fine granular structure; friable; common fine and medium roots; common fine flakes of mica; about 4 percent gravel; very strongly acid; clear wavy boundary.

Bt—10 to 23 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; friable; common fine and medium roots; common distinct clay films on faces of peds; common fine flakes of mica; about 4 percent gravel; strongly acid; gradual wavy boundary.

BC—23 to 28 inches; red (2.5YR 4/6) sandy clay loam; weak medium subangular blocky structure; friable; few fine roots; common distinct clay films on faces of peds; many fine flakes of mica; very strongly acid; gradual wavy boundary.

C/Bt—28 to 40 inches; saprolite from weathered schist (C part); massive; many flakes of mica; red (2.5YR 4/8) sandy clay loam (B part); weak coarse subangular blocky structure; friable; few fine roots; many fine and medium flakes of mica; firm; very strongly acid; clear irregular boundary.

C—40 to 80 inches; yellowish brown (10YR 5/6) sandy loam saprolite from weathered mica schist; massive; friable; very strongly acid.

Range in Characteristics

Thickness of the solum: 20 to 50 inches
Depth to bedrock: More than 60 inches
Content of mica flakes: Few to many
Content and size of rock fragments: 0 to 10 percent; mostly angular gravel
Reaction: Very strongly acid or strongly acid throughout, except where lime has been applied

Ap or A horizon:
Color—hue of 5YR to 10YR, value of 3 to 5, and chroma of 3 to 8
Texture—fine sandy loam, sandy loam, or loam

BA or BE horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 3 to 8
Texture—fine sandy loam, sandy loam, loam, or sandy clay loam

Bt horizon:
Color—hue of 10R to 5YR, value of 4 to 6, and chroma of 3 to 8
Texture—sandy clay, clay loam, or clay

BC horizon:
Color—hue of 10R to 5YR, value of 4 to 6, and chroma of 3 to 8
Texture—sandy loam, loam, sandy clay loam, or clay loam
Mottles—shades of red, yellow, and brown

C horizon:
Color—hue of 10R to 5YR, value of 4 to 6, and chroma 2 to 8; or is variegated in shades of yellow, brown, and red
Texture—sandy loam or sandy clay loam saprolite

Cr layer (where present; below 60 inches):
Type of bedrock—highly fractured, weathered mica schist

Mecklenburg Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Parent material: Residuum weathered from intermediate and mafic crystalline rock
Landscape: Piedmont uplands
Landform: Ridges and hillslopes
Landform position: Summits and backslopes
Slope: 6 to 15 percent
Taxonomic class: Fine, mixed, active, thermic Ultic Hapludalfs (fig. 9)

Commonly Associated Soils

- Davidson soils, which are in positions similar to those of the Mecklenburg soils and have a thicker solum
- Enon soils, which are in the lower positions and have yellow or brown subsoil
- Wilkes soils, which are in the higher shoulder positions and are shallow to bedrock
- Winnsboro soils, which are in the higher positions on shoulders and are deep to bedrock
- Wynott soils, which are on the lower, narrow ridges and are moderately deep to bedrock

Typical Pedon

Mecklenburg gravelly sandy loam, 2 to 6 percent slopes, moderately eroded; in Tallapoosa County, Alabama; about 1,250 feet north and 2,400 feet east of the southwest corner of section 27, T. 22 N., R. 24 E.; USGS Ponders topographic quadrangle; lat. 32 degrees 51 minutes 44 seconds N. and long. 85 degrees 38 minutes 16 seconds W.

A—0 to 4 inches; reddish brown (5YR 4/3) gravelly sandy loam; weak fine granular structure; very friable; common fine and medium roots; 25 percent gravel and 10 percent cobbles; strongly acid; clear wavy boundary.

Bt1—4 to 15 inches; red (2.5YR 4/6) clay; moderate medium granular structure; firm; common fine and medium roots; common clay films on faces of peds; strongly acid; gradual wavy boundary.

Bt2—15 to 25 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; firm; common fine and medium roots; common clay films on faces of peds; few medium distinct brownish yellow (10YR 6/6) masses of oxidized iron; moderately acid; gradual wavy boundary.

BC—25 to 33 inches; about 50 percent red (2.5YR 4/8) and about 50 percent brownish yellow (10YR 6/6) clay loam; weak fine subangular blocky structure; firm; few fine roots; common clay films on faces of peds; common fine and medium black concretions; moderately acid; clear wavy boundary.

C/Bt—33 to 60 inches; variegated loam saprolite (C part); massive; red (2.5YR 4/8) clay loam (Bt part); weak medium subangular blocky structure; friable; few fine roots; slightly acid; clear wavy boundary.

C—60 to 80 inches; about 50 percent strong brown (7.5YR 5/6) and about 50 percent yellowish brown (10YR 5/8) loam saprolite; massive; slightly acid.

Range in Characteristics

Thickness of the solum: 20 to 60 inches
Content and size of rock fragments: 15 to 30 percent in the A horizon and 0 to 10 percent in the B horizon; mostly gravel and cobbles
Reaction: Strongly acid to slightly acid in the A horizon and moderately acid to neutral in the B and C horizons

Figure 9.—A profile of a Mecklenburg soil. Mecklenburg soils formed in residuum weathered from mafic crystalline rock. These very deep, well drained soils have a clayey subsoil.

A or Ap horizon:
Color—hue of 2.5YR to 7.5YR, value of 3 to 6, and chroma of 2 to 6
Texture—sandy loam, loam, or clay loam or gravelly analogues of these textures

Bt horizon (upper part):
Color—hue of 2.5YR or 5YR, value of 3 to 6, and chroma of 4 to 8
Texture—clay

Bt horizon (lower part):
Color—hue of 2.5YR or 5YR, value of 4 to 6, and chroma of 4 to 8
Texture—clay
Redoximorphic features (where present)—relict and contemporary masses of oxidized iron in shades of brown, yellow, and red

BC horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 4 to 7, and chroma of 4 to 8; or variegated in shades of red and brown
Texture—sandy clay loam, clay loam, or loam

C horizon:
Color—variegated in shades of brown and yellow
Texture—variable; commonly sandy loam or loam saprolite

Montevallo Series

Depth class: Shallow
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from shale
Landscape: Sand Mountain Appalachian Plateau
Landform: Hillslopes
Landform position: Shoulders and backslopes
Slope: 15 to 40 percent
Taxonomic class: Loamy skeletal, mixed, subactive, thermic, shallow Typic Dystrudepts

Commonly Associated Soils

- Locust soils, which are in the lower toeslope and terrace positions and are moderately well drained
- Townley soils, which are on smoother side slopes and are moderately deep to bedrock

Typical Pedon

Montevallo gravelly fine sandy loam, in an area of Townley-Montevallo complex, 15 to 40 percent slopes; in Coosa County, Alabama, about 1.5 miles north of Blue Springs; 1,500 feet south and 1,000 feet east of the northwest corner of section 2, T. 24 N., R. 2 E.; Talladega Springs topographic quadrangle; lat. 33 degrees 06 minutes 30 seconds N. and long. 86 degrees 27 minutes 30 seconds W.

Ap—0 to 4 inches; very dark grayish brown (10YR 3/2) gravelly fine sandy loam; weak fine granular structure; very friable; many fine and medium roots; about 15 percent quartz gravel; moderately acid; clear smooth boundary.

E—4 to 8 inches; yellowish brown (10YR 5/4) very gravelly fine sandy loam; medium fine granular structure; very friable; common medium and many fine roots; about 35 percent quartz gravel; moderately acid; abrupt smooth boundary.

Bw—8 to 19 inches; yellowish red (5YR 5/8) very channery silty clay loam; weak fine subangular blocky structure; firm; few fine roots; about 60 percent shale channers; moderately acid; abrupt wavy boundary.
Cr—19 to 80 inches; moderately fractured, weathered shale

Range in Characteristics

Thickness of the solum: 10 to 20 inches
Depth to bedrock: 10 to 20 inches
Content and size of rock fragments: 15 to 65 percent; gravel or channers
Reaction: Very strongly acid to moderately acid in the A and E horizons; very strongly acid or strongly acid in the Bw and Cr horizons

Ap or A horizon:
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 2 to 4
Texture—silt loam, loam, or fine sandy loam

E horizon (where present):
Color—hue of 7.5YR or 10YR, value of 2 to 6, and chroma of 1 to 4
Texture—silt loam, loam, or fine sandy loam

Bw horizon:
Color—hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 8
Texture—silt loam, silty clay loam, clay loam, or clay

Cr horizon:
Type of bedrock—fractured, weathered silty shale or siltstone

Mountain Park Series

Depth class: Moderately deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from mica schist
Landscape: Piedmont
Landform: Hillslopes and escarpments
Landform position: Backslopes
Slope: 30 to 50 percent
Taxonomic class: Fine loamy, micaceous, thermic Typic Hapludults

Commonly Associated Soils

- Madison soils, which are on shoulders and have less mica than the Mountain Park soils
- Louisa soils, which are in positions similar to those of the Mountain Park soils and are shallow to bedrock
- Rion soils, which are in positions on the lower side slopes and are very deep to bedrock
- Sweetapple soils, which are on the higher side slopes and shoulders and are fine-loamy

Typical Pedon

Mountain Park gravelly sandy loam, in an area of Louisa-Mountain Park complex, 30 to 50 percent slopes; in Fulton County, Georgia, about 150 feet east of Juniper Street and 800 feet north of Rocky Creek; USGS Mountain Park topographic quadrangle; lat. 34 degrees 04 minutes 58 seconds N. and long. 84 degrees 24 minutes 19 seconds W.

A—0 to 4 inches; dark yellowish brown (10YR 3/4) gravelly sandy loam; weak fine granular structure; friable; common very fine and fine roots; common fine mica flakes; 3 percent cobbles and 7 percent gravel; very strongly acid; clear smooth boundary.

BE—4 to 10 inches; brown (7.5YR 4/4) gravelly sandy loam; weak fine subangular blocky structure; firm; common very fine, fine, and medium roots; many fine mica flakes; 2 percent cobbles and 8 percent gravel; very strongly acid; clear wavy boundary.

Bt—10 to 23 inches; brown (7.5YR 4/4) sandy clay loam; moderate fine subangular blocky structure; firm; common very fine, fine, and medium roots; common distinct clay films; many fine mica flakes; 12 percent gravel; strongly acid; clear wavy boundary.

BC—23 to 32 inches; yellowish red (5YR 4/6) sandy loam; weak fine subangular blocky structure; firm; few very fine, fine, and medium roots; few faint clay films; many fine mica flakes; 2 percent gravel; strongly acid; clear wavy boundary.

Cr—32 to 46 inches; soft, weathered mica schist.

C—46 to 55 inches; strong brown (7.5YR 4/6) sandy loam; massive; friable; many fine mica flakes; strongly acid; clear wavy boundary.

C´r—55 to 80 inches; soft, weathered mica schist.

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to bedrock: 20 to 40 inches
Content of mica flakes: Common or many
Content and size of rock fragments: 0 to 30 percent; mostly angular gravel
Reaction: Very strongly acid or strongly acid throughout, except where lime has been applied

Ap or A horizon:
Color—hue of 5YR to 10YR, value of 3 to 5, and chroma of 3 to 8
Texture—fine sandy loam, sandy loam, or loam

BA or BE horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 3 to 8
Texture—fine sandy loam, sandy loam, loam, or sandy clay loam

Bt horizon:
Color—hue of 10R to 5YR, value of 4 to 6, and chroma of 3 to 8
Texture—sandy clay, clay loam, or clay

C horizon:
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 2 to 6; or is variegated in shades of yellow, brown, and red
Texture—sandy loam, loam, or clay loam saprolite

Cr layer (where present):
Type of bedrock—weathered mica schist that can be dug with difficulty with hand tools

Pacolet Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from felsic crystalline rock

Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits and backslopes
Slope: 3 to 25 percent
Taxonomic class: Fine, kaolinitic, thermic Typic Kanhapludults

Commonly Associated Soils

- Cecil soils, which are in the higher positions on the broader ridges and have a deeper solum than the Pacolet soils
- The moderately well drained Hard Labor soils in the lower positions on toeslopes
- Grover soils, which are in the higher ridge positions and have micaceous mineralogy
- Wedowee soils, which are in similar position to those of the Pacolet soils but have a brown solum
- The fine-loamy Rion soils, which are in the lower positions on side slopes

Typical Pedon

Pacolet gravelly sandy loam, in an area of Pacolet-Rion complex, 6 to 15 percent slopes, moderately eroded, stony; in Coosa County, Alabama, about 2.0 miles north of Kellyton; 700 feet north and 400 feet west of the southeast corner of section 2, T. 23 N., R. 20 E.; USGS Goodwater topographic quadrangle; lat. 33 degrees 00 minutes 24 seconds N. and long. 86 degrees 01 minute 45 seconds W.

Ap—0 to 4 inches; dark yellowish brown (10YR 3/4) gravelly sandy loam; weak fine granular structure; very friable; about 15 percent gravel; strongly acid; clear wavy boundary.

BA—4 to 9 inches; dark yellowish brown (10YR 4/4) and red (2.5YR 4/6) clay loam; weak medium subangular blocky structure; friable; many fine and medium and common coarse roots; common faint clay films on faces of peds; strongly acid; clear wavy boundary.

Bt—9 to 25 inches; red (2.5YR 4/6) clay; moderate medium subangular blocky structure; firm; common fine and medium roots; common faint clay films on faces of peds; very strongly acid; gradual irregular boundary.

Bt/C—25 to 36 inches; red (2.5YR 4/6) clay (Bt part); moderate medium subangular blocky structure; firm; few faint clay films on faces of peds; very strongly acid; variegated sandy clay loam (C part); massive; friable; strongly acid; clear irregular boundary.

C/Bt—36 to 56 inches; variegated sandy loam (C part); massive; friable; very strongly acid; red (2.5YR 4/8) clay (Bt part); moderate medium subangular blocky structure; friable; common distinct clay films on faces of peds; very strongly acid; clear irregular boundary.

C—56 to 80 inches; variegated red, brown, and yellow sandy loam saprolite weathered from diorite gneiss; rock structure of parent material controls structure; friable; common fine flakes of feldspar; very strongly acid.

Range in Characteristics

Thickness of the solum: 20 to more than 40 inches
Depth to bedrock: More than 60 inches
Content and size of rock fragments: 0 to 30 percent; mostly angular gravel
Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied

Ap horizon:
Color—hue of 2.5YR to 10YR, value of 3 to 5, and chroma of 2 to 8
Texture—sandy loam, fine sandy loam, or loam

E horizon (where present):
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 8
Texture—sandy loam, fine sandy loam, or loam

BA or BE horizon (where present):
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 3 to 8
Texture—sandy clay loam, clay loam, or loam

Bt horizon:
Color—hue of 10R or 2.5YR, value of 4 or 5, and chroma 6 or 8
Texture—sandy clay, clay loam, or clay
Mottles—shades of red, yellow, and brown

C horizon:
Color—variegated in shades of red, brown, and yellow
Texture—loamy saprolite

Rion Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from felsic crystalline rock
Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits and backslopes
Slope: 6 to 35 percent
Taxonomic class: Fine-loamy, mixed, semiactive, thermic Typic Hapludults

Commonly Associated Soils

- Cecil soils, which are in the higher ridge positions, are clayey, and have a deeper, thicker solum
- Louisburg soils, which are in the higher shoulder positions
- Mountain Park soils, which are in the higher shoulder positions and are moderately deep
- Pacolet soils, which are on the lower side slopes and have a fine control section
- Wedowee soils, which are in the lower positions on side slopes and have a fine control section

Typical Pedon

Rion gravelly sandy loam, in an area of Pacolet-Rion complex, 15 to 25 percent slopes, moderately eroded, stony; in Tallapoosa County, Alabama; 125 feet south and 2,400 feet east of the northwest corner of section 3, T. 23 N., R. 21 E.; USGS Hackneyville topographic quadrangle; lat. 33 degrees 00 minutes 59 seconds N. and long. 85 degrees 56 minutes 56 seconds W.

A—0 to 5 inches; dark brown (10YR 4/3) gravelly sandy loam; weak fine granular structure; very friable; many fine and medium roots; 20 percent gravel; moderately acid; clear wavy boundary.

Bt1—5 to 16 inches; yellowish brown (10YR 5/6) sandy clay loam; weak fine subangular blocky structure; friable; few fine roots; strongly acid; clear wavy boundary.

Bt2—16 to 32 inches; yellowish red (5YR 4/6) clay loam; moderate medium subangular blocky structure; friable; few fine roots; common faint patchy clay films on faces of peds; very strongly acid; gradual wavy boundary.

BC—32 to 39 inches; strong brown (7.5YR 5/6) sandy clay loam; weak medium subangular blocky structure; friable; few fine roots; very strongly acid; gradual wavy boundary.

C1—39 to 47 inches; brownish yellow (10YR 6/6) sandy loam saprolite; massive; friable; very strongly acid; gradual wavy boundary.

C2—47 to 80 inches; brownish yellow (10YR 6/8) sandy loam saprolite; massive; friable; very strongly acid.

Range in Characteristics

Thickness of the solum: 20 to 50 inches
Depth to bedrock: More than 60 inches
Content and size of rock fragments: 0 to 35 percent; mostly gravel
Reaction: Very strongly acid to slightly acid throughout, except where lime has been applied

Ap or A horizon:
Color—hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 2 to 6
Texture—fine sandy loam or sandy loam

E horizon (where present):
Color—hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 2 to 6
Texture—sandy loam, loamy coarse sand, or loam

Bt horizon:
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma 4 to 8
Texture—sandy clay loam, sandy loam, loam, or clay loam

BC horizon (where present):
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8
Texture—loam, clay loam, sandy clay loam, sandy loam, or fine sandy loam

C horizon:
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 4 to 8
Texture—loamy sand, loam, fine sandy loam, or sandy clay loam saprolite

Shellbluff Series

Depth class: Very deep
Drainage class: Moderately well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Silty alluvium
Landscape: Piedmont
Landform: Flood plains
Landform position: Smooth to slightly convex slopes
Slope: 0 to 2 percent
Taxonomic class: Fine-silty, mixed, active, thermic Oxyaquic Dystrudepts

Commonly Associated Soils

- Allen soils, which are in the higher terrace and footslope positions and are well drained
- Decatur soil, which are in the higher ridge positions and are well drained
- Locust soils, which are in the higher terrace positions and have a fragipan
- Madison soils, which are in the higher ridge and side slope positions and are well drained
- Tallapoosa soils, which are in the higher side slope positions and are moderately deep to phyllite

- Wickham soils, which are in the higher, more convex terraces and have a red solum
- Soils that are in the lower positions and have low chroma depletions higher in the profile

Typical Pedon

Shellbluff loam, 0 to 2 percent slopes, frequently flooded; in Coosa County, Alabama, about 1.5 miles southeast of Talladega Springs; 500 feet south and 500 feet west of the northeast corner of section 12, T. 24 N., R. 16 E.; USGS Talladega Springs topographic quadrangle; lat 33 degrees 05 minutes 20 seconds N. and long. 86 degrees 26 minutes 10 seconds W.

Ap—0 to 8 inches; dark yellowish brown (10YR 4/4) loam; weak fine granular structure; friable; many fine and medium roots; strongly acid; clear abrupt boundary.

Bw1—8 to 23 inches; strong brown (7.5YR 4/6) silty clay loam; weak fine subangular blocky structure; friable; common fine and medium roots; few fine soft masses of manganese; strongly acid; clear smooth boundary.

Bw2—23 to 38 inches; strong brown (7.5YR 4/6) silty clay loam; weak fine subangular blocky structure; common fine and medium roots; few light gray (10YR 7/2) iron depletions; many light yellowish brown (10YR 6/4) masses of oxidized iron; few fine soft masses of manganese; strongly acid; clear smooth boundary.

Bw3—38 to 48 inches; yellowish brown (10YR 5/6) silt loam; weak fine subangular blocky structure; few fine roots; common light gray (10YR 7/2) iron depletions; common brownish yellow (10YR 6/8) masses of oxidized iron; many fine soft masses of manganese; strongly acid; gradual wavy boundary.

C—48 to 80 inches; light yellowish brown (2.5Y 6/4) stratified loam and sandy loam; massive; friable; common light brownish gray (2.5Y 6/2) iron depletions; common yellowish brown (10YR 5/6) masses of oxidized iron; strongly acid.

Range in Characteristics

Thickness of the solum: 20 to more than 40 inches
Depth to bedrock: More than 60 inches
Content of mica flakes: Few or common
Reaction: Very strongly acid to slightly acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 3 or 4
Texture—loamy sand, sandy loam, or loam

Bw horizon:
Color—hue of 7.5YR to 2.5Y, value of 4 or 5, and chroma of 4 to 8
Texture—silty clay loam, clay loam, silt loam, or loam
Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of red, yellow, and brown; and black masses of manganese

C horizon:
Color—hue of 5YR to 2.5Y, value of 4 to 8, and chroma of 1 to 8
Texture—stratified silty clay loam to sandy loam
Redoximorphic features—iron depletions in shades of gray; masses of oxidized iron in shades of red, yellow, and brown; and black masses of manganese

Springhill Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)

Parent material: Loamy and sandy marine sediments
Landscape: Coastal Plain
Landform: Ridges
Landform position: Summits
Slope: 2 to 6 percent
Taxonomic class: Fine-loamy, kaolinitic, thermic Typic Kanhapludults

Commonly Associated Soils

- Soils that have a brown upper subsoil
- Soils that have more clay in the lower part of the solum

Typical Pedon

Springhill sandy loam, 2 to 5 percent slopes; in Coosa County, Alabama, about 1.0 mile southwest of Welona; 150 feet north and 1,500 feet east of the southwest corner of section 35, T. 21 N., R. 17 E.; USGS Richville topographic quadrangle; lat. 32 degrees 45 minutes 30 seconds N. and long. 86 degrees 21 minutes 00 seconds W.

Ap—0 to 6 inches; dark yellowish brown (10YR 4/4) sandy loam; weak fine granular structure; very friable; many fine and medium roots; about 10 percent quartz gravel; strongly acid; abrupt smooth boundary.

Bt1—6 to 19 inches; red (2.5YR 4/6) sandy clay loam; weak fine subangular blocky structure; firm; common fine and medium roots; few distinct clay films on faces of peds; about 3 percent quartz gravel; very strongly acid; clear smooth boundary.

Bt2—19 to 50 inches; red (2.5YR 4/6) sandy clay loam; few faint distinct yellow (10YR 7/6) mottles; weak moderate subangular blocky structure; firm; common fine and medium roots; few distinct clay films on faces of peds; about 3 percent quartz gravel; strongly acid; clear smooth boundary.

Bt3—50 to 80 inches; red (2.5YR 5/6) sandy loam, common medium distinct yellow (10YR 7/6) mottles; moderate medium subangular blocky structure; firm; common fine roots; few distinct clay films on faces of peds; about 3 percent quartz gravel; strongly acid.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Depth to bedrock: More than 6.0 feet
Content and size of rock fragments: 5 to 10 percent throughout; rounded gravel
Reaction: Very strongly acid or strongly acid throughout, except where lime has been applied

A or Ap horizon:
Color—hue of 10YR, value of 3 to 5, and chroma of 2 to 4
Texture—sandy loam

Bt horizon (upper part):
Color—hue of 2.5YR or 5YR, value of 5 or 6, and chroma of 4 to 8
Texture—sandy clay loam or sandy loam

Bt horizon (lower part):
Color—hue of 2.5YR or 5YR, value of 5 or 6, and chroma of 4 to 8
Texture—sandy loam
Mottles—shades of red, brown, and yellow

Sweetapple Series

Depth class: Moderately deep
Drainage class: Well drained

Slowest saturated hydraulic conductivity: High (about 1.98 in/hr)
Parent material: Residuum weathered from mica gneiss or mica schist
Landscape: Piedmont
Landform: Hillslopes
Landform position: Backslopes
Slope: 15 to 40 percent
Taxonomic class: Coarse loamy, micaceous, thermic Typic Dystrudepts

Commonly Associated Soils

- Cecil soils, which are in the higher ridge positions and have a deep, clayey solum
- Madison soils, which are in the higher positions, have a thicker solum, and have argillic horizons
- Mountain Park soils, which are in the lower side slope positions and are fine-loamy
- Soils that are in positions similar to those of the Sweetapple soils and have argillic horizons

Typical Pedon

Sweetapple gravelly sandy loam, in an area of Sweetapple-Mountain Park complex, 15 to 40 percent slopes; in Coosa County, Alabama, about 2.0 miles west of Mt. Olive; 2,000 feet south and 1,500 feet east of the northwest corner of section 23, T. 24 N., R. 19 E.; USGS Hollins topographic quadrangle; lat. 33 degrees 03 minutes 20 seconds N. and long. 86 degrees 08 minutes 32 seconds W.

Ap—0 to 6 inches; dark brown (10YR 3/3) gravelly sandy loam; weak fine granular structure; very friable; many fine, medium, and coarse roots; few fine mica flakes; about 20 percent quartz gravel; strongly acid; clear smooth boundary.
Bw1—6 to 12 inches; dark yellowish brown (10YR 4/4) gravelly sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; common fine mica flakes; about 25 percent quartz gravel; very strongly acid; clear wavy boundary.
Bw2—12 to 23 inches; dark yellowish brown (10YR 4/4) gravelly sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; common fine mica flakes; about 30 percent gneiss gravel; strongly acid; clear irregular boundary.
Cr—23 to 80 inches; moderately fractured, weathered mica gneiss and mica schist

Range in Characteristics

Thickness of the solum: 15 to 36 inches
Depth to bedrock: 20 to 36 inches
Content of mica flakes: Few or common
Content and size of rock fragments: 5 to 30 percent throughout; gravel
Reaction: Very strongly acid to slightly acid throughout, except where lime has been applied

A horizon:
Color—hue of 7.5YR or 10YR, value of 3 to 5, and chroma of 2 to 6
Texture—fine sandy loam, sandy loam, or loam

Bw horizon:
Color—hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 4 or 6
Texture—loamy coarse sand, sandy loam, fine sandy loam, or loam

C horizon (where present):
Color—variegated in shades of red, brown, and yellowish brown
Texture—sandy loam or loam saprolite

Cr horizon:
Type of bedrock—fractured, weathered mica gneiss and mica schist

Tallapoosa Series

Depth class: Shallow
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from phyllite and sericite schist
Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits and backslopes
Slope: 3 to 40 percent
Taxonomic class: Loamy, mixed, thermic, shallow Typic Hapludults (fig. 10)

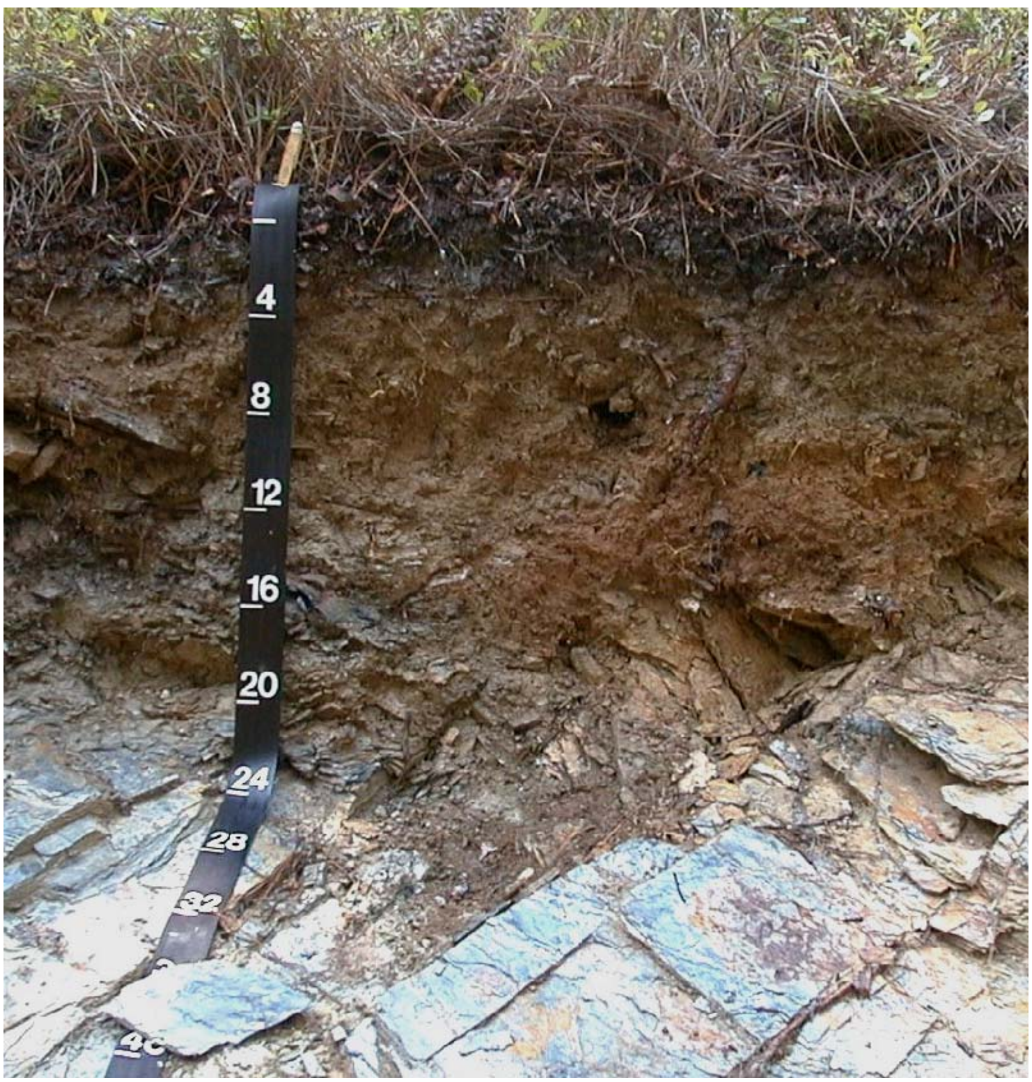

Figure 10.—A profile of a Tallapoosa soil. Tallapoosa soils formed in residuum weathered from phyllite. These somewhat excessively drained soils have soft bedrock at shallow depths and are droughty during dry periods.

Commonly Associated Soils

- Badin soils, which are in the lower positions on side slopes and are moderately deep to bedrock
- Fruithurst soils, which are in positions similar to those of the Tallapoosa soils, are moderately deep, and have a fine-loamy control section
- Louisa soils, which are in positions similar to those of the Tallapoosa soils and are shallow to mica schist bedrock
- Shellbluff soils, which are in flood plain positions and are moderately well drained
- Tatum soils, which are on the higher, smoother slopes and are deep to bedrock

Typical Pedon

Tallapoosa gravelly loam, in an area of Tallapoosa-Fruithurst complex, 15 to 40 percent slopes, moderately eroded; in Tallapoosa County, Alabama, about 1.2 miles northwest of Smith Mountain; 800 feet south and 1,900 feet east of the northwest corner of section 10, T. 21 N., R. 22 E.; USGS Dadeville topographic quadrangle; lat. 32 degrees 49 minutes 28 seconds N. and long. 85 degrees 50 minutes 46 seconds W.

A—0 to 4 inches; reddish brown (5YR 4/4) gravelly loam; weak medium granular structure; very friable; common fine, medium, and coarse roots; few fine flakes of mica; 25 percent angular gravel; strongly acid; clear wavy boundary.

E—4 to 8 inches; yellowish red (5YR 5/6) gravelly loam; weak medium granular structure; very friable; common fine, medium, and coarse roots; common fine flakes of mica; 25 percent angular gravel; strongly acid; clear wavy boundary.

BE—8 to 12 inches; yellowish red (5YR 4/6) clay loam; weak medium subangular blocky structure; friable; common fine and medium roots; common fine and medium flakes of mica; 10 percent angular gravel; strongly acid; gradual wavy boundary.

Bt—12 to 16 inches; red (2.5YR 4/8) clay loam; moderate medium subangular blocky structure; friable; common fine and medium and few coarse roots; common faint clay films on faces of peds; common fine flakes of mica; very strongly acid; clear irregular boundary.

Cr—16 to 80 inches; highly weathered schist and phyllite; platy rock structure, tilted diagonally.

Range in Characteristics

Thickness of the solum: 10 to 20 inches
Depth to bedrock: 10 to 20 inches
Content of mica flakes: Few to many
Content and size of rock fragments: 0 to 35 percent in the A, E, and BE horizons and 0 to 15 percent in the B horizon; mostly gravel or cobbles
Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied

Ap horizon:
Color—hue of 5YR to 10YR, value of 3 to 5, and chroma of 2 to 6
Texture—loam or gravelly analogues of this texture

E or BE horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 3 to 8
Texture—silt loam, loam, or silty clay loam or gravelly analogues of these textures

Bt horizon:
Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 4 to 8

Texture—loam, silty clay loam, or clay loam or gravelly analogues of these textures

C horizon (where present):
Color—variegated in shades of yellow, brown, and red
Texture—silty clay loam or silt loam

Cr layer:
Type of bedrock—weathered sericite schist or phyllite

Tatum Series

Depth class: Deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Parent material: Residuum weathered from phyllite and sericite schist
Landscape: Piedmont
Landform: Ridges
Landform position: Summits
Slope: 2 to 6 percent
Taxonomic class: Fine, mixed, semiactive, thermic Typic Hapludults

Commonly Associated Soils

- Badin soils, which are in positions similar to those of the Tatum soils, are on upper side slopes, and are moderately deep to bedrock
- The fine-loamy Fruithurst soils, which are in the higher positions on shoulders and are moderately deep
- Tallapoosa soils, which are in the higher positions on shoulders and are shallow to bedrock

Typical Pedon

Tatum gravelly loam, in an area of Badin-Tatum-Tallapoosa complex, 2 to 6 percent slopes, moderately eroded; in Tallapoosa County, Alabama, about 0.75 mile southwest of Goldville; 1,350 feet north and 1,300 feet east of the southwest corner of section 7, T. 24 N., R. 23 E.; USGS New Site topographic quadrangle lat. 33 degrees 04 minutes 44 seconds N. and long. 85 degrees 47 minutes 47 seconds W.

Ap—0 to 5 inches; dark yellowish brown (10YR 4/4) gravelly loam; weak medium granular structure; friable; common fine and medium and few coarse roots; about 15 percent coarse fragments; strongly acid; clear wavy boundary.

BE—5 to 10 inches; strong brown (7.5YR 4/6) loam; moderate medium granular structure; friable; common fine and medium and few coarse roots; about 10 percent coarse fragments; strongly acid; gradual wavy boundary.

Bt1—10 to 15 inches; yellowish red (5YR 4/6) silty clay loam; weak medium subangular blocky structure; friable; common fine and medium roots; common medium distinct clay films on faces of peds; very strongly acid; gradual wavy boundary.

Bt2—15 to 31 inches; red (2.5YR 4/6) clay loam; moderate medium subangular blocky structure; firm; few fine and medium roots; very strongly acid; gradual wavy boundary.

Bt3—31 to 42 inches; red (2.5YR 4/6) silty clay loam; moderate medium subangular blocky structure; firm; few fine and medium roots; very strongly acid; gradual irregular boundary.

Cr—42 to 80 inches; highly weathered, tilted phyllite; platy rock structure, tilted diagonally.

Range in Characteristics

Thickness of the solum: 30 to 60 inches
Depth to bedrock: 40 to 60 inches
Content of rock fragments: 0 to 15 percent in the solum
Reaction: Very strongly acid or strongly acid throughout, except where lime has been applied

Ap horizon:
Color—hue of 5YR to 10YR, value of 3 to 5, and chroma of 3 to 8
Texture—loam, silt loam, or fine sandy loam

E horizon (where present):
Color—hue of 5YR to 10YR, value of 5 or 6, and chroma of 3 to 6
Texture—loam or silt loam

BE horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 3 to 8
Texture—loam, silt loam, or silty clay loam

Bt horizon:
Color—hue of 10R to 5YR, value of 4 or 5, and chroma of 4 to 8
Texture—silty clay, silty clay loam, clay loam, or clay

C horizon (where present):
Color—hue of 10R to 5YR, value of 4 to 6, and chroma of 4 to 8
Texture—silty clay loam or silt loam

Cr layer:
Type of bedrock—weathered sericite schist or phyllite

Toccoa Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: High (about 1.98 in/hr)
Parent material: Loamy and sandy alluvium
Landscape: Upper Coastal Plain and Piedmont
Landform: Flood plains
Landform position: Convex to smooth slopes on natural levees
Slope: 0 to 4 percent
Taxonomic class: Coarse-loamy, mixed, active, nonacid, thermic Typic Udifluvents (fig. 11)

Commonly Associated Soils

- Altavista soils, which are at the heads of drains and are moderately well drained
- The somewhat poorly drained Chewacla and Cartecay soils in the lower, more level positions
- The fine-loamy Wehadkee soils, which are in the lower, broader positions

Typical Pedon

Toccoa fine sandy loam, in an area of Chewacla, Cartecay, and Toccoa soils, 0 to 1 percent slopes, frequently flooded; in Tallapoosa County, Alabama, about 3.9 miles south of Zana; 300 feet north and 2,050 feet east of the southwest corner of section 31, T. 24 N., R. 24 E.; USGS Daviston topographic quadrangle; lat. 33 degrees 01 minute 10 seconds N. and long. 85 degrees 41 minutes 25 seconds W.

Figure 11.—A profile of a Toccoa soil. Toccoa soils formed in coarse alluvial sediments. These very deep, well drained and moderately well drained soils generally have stratified loamy and sandy material.

Ap—0 to 4 inches; dark brown (7.5YR 4/3) fine sandy loam; moderate fine granular structure; friable; common fine and medium roots; common fine flakes of mica; moderately acid; clear smooth boundary.

C1—4 to 28 inches; strong brown (7.5YR 4/6) stratified sandy loam and loamy sand; massive; friable; common fine and very fine roots; many fine flakes of mica; moderately acid; gradual wavy boundary.

C2—28 to 36 inches; dark yellowish brown (10YR 4/4) sandy loam; massive; friable; many fine flakes of mica; very strongly acid; clear irregular boundary.

Ab—36 to 43 inches; dark brown (10YR 4/3) silt loam; massive; friable; common fine flakes of mica; very strongly acid; clear wavy boundary.

C´—43 to 80 inches; light yellowish brown (10YR 6/4) sandy loam; massive; friable; common medium distinct yellowish brown (10YR 5/6) masses of oxidized iron; many fine flakes of mica; strongly acid.

Range in Characteristics

Depth to contrasting soil material: More than 60 inches
Depth to bedrock: More than 60 inches
Content of rock fragments: 0 to 15 percent in the solum
Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied

Ap or A horizon:
Color—hue of 5YR to 10YR, value of 3 to 5, and chroma of 2 to 4
Texture—loamy sand, fine sandy loam, sandy loam, loam, or silt loam

C horizon:
Color—hue of 5YR to 10YR, value of 4 to 6, and chroma of 3 to 8
Texture—loamy sand, sandy loam, fine sandy loam, loam, or silt loam or stratified with these textures
Redoximorphic features (where present)—iron depletions in shades of brown and gray below 20 inches and masses of oxidized iron in shades of brown

Ab horizon (where present):
Color—hue of 5YR to 10YR, value of 3 to 5, and chroma of 2 to 4
Texture—loamy sand, fine sandy loam, sandy loam, loam, or silt loam

Townley Series

Depth class: Moderately deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Parent material: Residuum weathered from shale
Landscape: Sand Mountain Appalachian Plateau
Landform: Knolls, ridges, and hillslopes
Landform position: Summits and backslopes
Slope: 6 to 35 percent
Taxonomic class: Fine, mixed, semiactive, thermic Typic Hapludults

Commonly Associated Soils

- Locust soils, which are in the lower toeslope and terrace positions and are moderately well drained
- Montevallo soils, which are in the more convex shoulder positions and are shallow to bedrock

Typical Pedon

Townley gravelly fine sandy loam, 6 to 15 percent slopes; in Coosa County, Alabama, about 1.5 miles north of Blue Springs; 1,500 feet south and 1,000 feet east of the northwest corner of section 2, T. 24 N., R. 2 E.; Talladega Springs topographic quadrangle; lat. 33 degrees 06 minutes 30 seconds N. and long. 86 degrees 27 minutes 30 seconds W.

Ap—0 to 4 inches; very dark grayish brown (10YR 3/2) gravelly fine sandy loam; weak fine granular structure; very friable; many fine and medium roots; about 25 percent quartz gravel; moderately acid; clear smooth boundary.

BA—4 to 8 inches; yellowish brown (10YR 4/4) fine sandy loam; medium fine granular structure; very friable; common medium and many fine roots; about 10 percent quartz gravel; moderately acid; abrupt smooth boundary.

Bt1—8 to 22 inches; strong brown (7.5YR 5/8) channery clay; weak moderate medium subangular blocky structure; firm; common fine and medium roots; common clay films on faces of peds; about 20 percent shale channers; strongly acid; gradual wavy boundary.

BC—22 to 26 inches; reddish yellow (7.5YR 6/8) very channery silty clay loam; moderate medium subangular blocky structure; firm; few fine and medium roots; about 35 percent shale channers; strongly acid; gradual wavy boundary.

Cr—26 to 80 inches; fractured, level-bedded, weathered silty shale

Range in Characteristics

Thickness of the solum: 20 to 40 inches
Depth to bedrock: 20 to 40 inches
Content and size of rock fragments: 5 to 35 percent in the upper part and 5 to 60 percent in the lower part; gravel or channers
Reaction: Very strongly acid to strongly acid throughout, except where lime has been applied

Ap or A horizon:
Color—hue of 7.5YR to 2.5Y, value of 2 to 4, and chroma of 2 or 3
Texture—silt loam, loam, or fine sandy loam

BA horizon (where present):
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 3 to 6
Texture—loam or fine sandy loam

Bt horizon:
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 4 to 8
Texture—silty clay loam, silty clay, or clay

BC horizon (where present):
Color—hue of 7.5YR or 10YR, value of 4 to 6, and chroma of 4 to 8
Texture—silty clay loam or silty clay

Cr horizon:
Type of bedrock—fractured shale; or interbedded with shale and sandstone in some pedons

Wedowee Series

Depth class: Very deep
Drainage class: Well drained

Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Residuum weathered from felsic crystalline rock
Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits and backslopes
Slope: 3 to 35 percent
Taxonomic class: Fine, kaolinitic, thermic Typic Kanhapludults

Commonly Associated Soils

- Alcovy soils, which are in the lower toeslope positions, are moderately well drained, and have a fragipan
- Bethlehem soils, which are in similar positions to those of the Wedowee soils but are moderately deep to bedrock
- Grover soils, which are in the higher ridge positions and have micaceous mineralogy
- The moderately well drained Hard Labor soils in the lower positions on toeslopes
- The coarse-loamy Louisburg and the fine-loamy Rion soils, which are in the lower side slope positions
- Pacolet soils, which are in positions similar to those of the Wedowee soils and have a red solum

Typical Pedon

Wedowee gravelly sandy loam, 3 to 10 percent slopes, moderately eroded; in Tallapoosa County, Alabama, about 100 feet north of Coley Creek Rd.; 1,000 feet south and 550 feet west of the northeast corner of section 6, T. 22 N., R. 22 E.; USGS Goodwater topographic quadrangle; lat. 32 degrees 55 minutes 31 seconds N. and long. 85 degrees 53 minute 21 seconds W.

Ap—0 to 2 inches; dark brown (10YR 3/3) gravelly sandy loam; weak medium granular structure; very friable; many fine, medium, and coarse roots; about 15 percent gravel; strongly acid; clear wavy boundary.

BE—2 to 5 inches; light yellowish brown (10YR 6/4) sandy loam; weak fine granular structure; friable; common fine, medium, and coarse roots; strongly acid; clear wavy boundary.

Bt1—5 to 15 inches; yellowish red (5YR 5/8) clay; moderate medium and coarse subangular blocky structure; firm; common fine and medium roots; common faint clay films on faces of peds; common feldspars; common fine and medium flakes of mica; very strongly acid; gradual wavy boundary.

Bt2—15 to 28 inches; yellowish red (5YR 5/6) clay; common medium distinct yellowish brown (10YR 6/6) mottles; moderate coarse subangular blocky structure; firm; common medium and fine roots; few faint clay films on faces of peds; common feldspars; common fine and medium flakes of mica; very strongly acid; clear wavy boundary.

BC—28 to 34 inches; strong brown (7,5YR 5/8) sandy clay loam; common medium distinct yellowish brown (10YR 6/6) and light yellowish brown (10YR 6/4) mottles; weak coarse subangular blocky structure; very strongly acid; clear irregular boundary.

C1—34 to 50 inches; variegated red, brown, and yellow sandy loam saprolite weathered from gneiss granite; rock structure of parent material controls structure; friable; very strongly acid; gradual wavy boundary.

C2—50 to 80 inches; variegated red, brown, and yellow sandy loam saprolite weathered from diorite gneiss; rock structure of parent material controls structure; friable; very strongly acid.

Range in Characteristics

Thickness of the solum: 20 to more than 40 inches
Depth to bedrock: More than 80 inches
Content of rock fragments: 0 to 15 percent in the solum
Reaction: Very strongly acid to moderately acid throughout, except where lime has been applied

Ap horizon:
Color—hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 8
Texture—sandy loam, fine sandy loam, or loam

E horizon (where present):
Color—hue of 7.5YR to 2.5Y, value of 4 to 7, and chroma of 3 to 8
Texture—sandy loam, fine sandy loam, or loam

BE horizon (where present):
Color—hue of 5YR to 10YR, value of 4 to 7, and chroma of 3 to 8
Texture—sandy clay loam, clay loam, or loam

Bt horizon:
Color—hue of 5YR to 10YR, value of 4 to 6, and chroma 4 to 8
Texture—sandy clay, clay loam, or clay
Mottles—shades of red, yellow, and brown

BC horizon (where present):
Color—hue of 2.5YR to 10YR, value of 5 to 7, and chroma of 4 to 8
Texture—sandy clay loam, clay loam, or loam
Mottles—shades of yellow and brown

C horizon:
Color—variegated in shades of red, brown, and yellow
Texture—loamy saprolite from highly weathered gneiss or schist

Wehadkee Series

Depth class: Very deep
Drainage class: Poorly drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.60 in/hr)
Parent material: Loamy alluvium
Landscape: Piedmont
Landform: Flood plains
Landform position: Smooth to concave slopes in drainageways and backswamps
Slope: 0 to 2 percent
Taxonomic class: Fine-loamy, mixed, active, nonacid, thermic Fluvaquentic Endoaquepts

Commonly Associated Soils

- The somewhat poorly drained Cartecay and Chewacla soils, which are in the slightly higher and the more level positions than the Wehadkee soils
- The fine-loamy, well drained Toccoa soils, which are on the higher, natural levees

Typical Pedon

Wehadkee silt loam, 0 to 2 percent slopes, frequently flooded; in Coosa County, Alabama, about 3.4 miles southeast of Goodwater; 200 feet north and 1,400 feet west of the southeast corner of section 35, T. 24 N., R. 20 E.; USGS Goodwater topographic quadrangle; lat. 33 degrees 04 minutes 01 second N. and long. 86 degrees 01 minute 49 seconds W.

A—0 to 4 inches; dark grayish brown (10YR 4/2) silt loam; weak fine granular structure; friable; many fine, medium, and coarse roots; common medium distinct dark yellowish brown (10YR 4/4) root stains; strongly acid; clear smooth boundary.

Bg—4 to 20 inches; gray (10YR 5/1) loam; weak fine subangular blocky structure; friable; many fine, medium, and coarse roots; many distinct dark yellowish brown (10YR 4/4) masses of oxidized iron along root channels; strongly acid; abrupt smooth boundary.

Cg1—20 to 40 inches; gray (10YR 5/1) stratified sandy loam and loam; massive; friable; common fine, medium, and coarse roots; common medium distinct dark yellowish brown (10YR 4/4) masses of oxidized iron along root channels; strongly acid; clear wavy boundary.

Cg2—40 to 80 inches; dark gray (10YR 4/1) sandy loam; massive; friable; common medium distinct dark yellowish brown (10YR 4/4) masses of oxidized iron along root channels; strongly acid; clear wavy boundary.

Range in Characteristics

Thickness of the solum: 20 to more than 60 inches
Depth to bedrock: More than 60 inches
Content of mica flakes: Few to common
Content of concretions: None to common; generally manganese
Content of rock fragments: 0 to 15 percent
Reaction: Strongly acid to neutral throughout

A or Ap horizon:
Color—hue of 10YR or 2.5Y, value of 3 to 6, and chroma of 0 to 4
Texture—silt loam or fine sandy loam

Bg horizon:
Color—hue of 10YR to 5Y, value of 4 to 6, and chroma 0 to 2
Texture—silt loam, loam, silty clay loam, sandy clay loam, or clay loam
Redoximorphic features—iron depletions in shades of gray and masses of oxidized iron in shades of red, brown, and yellow

Cg horizon:
Color—hue of 10YR to 5Y, value of 4 to 7, and chroma of 0 to 2
Texture—variable; commonly sandy loam, loam, silt loam, sandy clay loam, or clay loam
Redoximorphic features—iron depletions in shades of gray and masses of oxidized iron in shades of red, brown, and yellow

Wickham Series

Depth class: Very deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.57 in/hr)
Parent material: Fluvial sediments
Landscape: Piedmont
Landform: Stream terraces
Landform position: Smooth or slightly convex slopes
Slope: 2 to 6 percent
Taxonomic class: Fine-loamy, mixed, semiactive, thermic Typic Hapludults

Commonly Associated Soils

- The somewhat poorly drained Chewacla and Cartecay soils in the lower positions
- Shellbluff soils, which are in the lower flood plain positions and are moderately well drained
- Toccoa soils, which are along natural levees closer to stream channels

Typical Pedon

Wickham sandy loam, 2 to 6 percent slopes, rarely flooded; in Tallapoosa County, Alabama, about 1.9 miles south of Daviston; 950 feet south and 1,700 feet east of the northwest corner of section 11, T. 23 N., R. 24 E.; USGS Wadley South topographic quadrangle; lat. 33 degrees 00 minutes 08 seconds N. and long. 85 degrees 37 minutes 21 seconds W.

Ap1—0 to 4 inches; dark brown (10YR 4/4) loam; weak medium granular structure; friable; many fine and medium roots; few fine flakes of mica; strongly acid; abrupt smooth boundary.

Ap2—4 to 10 inches; dark brown (10YR 4/4) loam; moderate medium granular structure; friable; many fine and medium roots; few fine flakes of mica; strongly acid; abrupt smooth boundary.

Bt1—10 to 20 inches; yellowish red (7.5YR 5/6) sandy clay loam; strong medium subangular blocky structure; friable; common fine and medium roots; common distinct clay films on faces of peds; few fine flakes of mica; strongly acid; gradual wavy boundary.

Bt2—20 to 32 inches; yellowish red (5YR 5/6) sandy clay loam; moderate medium subangular blocky structure; friable; few fine roots; common distinct clay films on faces of peds; common fine flakes of mica; very strongly acid; gradual wavy boundary.

Bt3—32 to 43 inches; yellowish red (5YR 5/8) sandy clay loam; moderate medium subangular blocky structure; friable; few fine roots; common distinct clay films on faces of peds; common fine flakes of mica; very strongly acid; gradual wavy boundary.

Bt4—43 to 58 inches; yellowish red (5YR 5/8) sandy loam; weak medium subangular blocky structure; friable; few fine roots; common distinct clay films on faces of peds; common fine flakes of mica; very strongly acid; gradual wavy boundary.

BC—58 to 74 inches; strong brown (7.5YR 5/6) fine sandy loam; weak medium and fine subangular blocky structure; friable; few fine roots; common fine and medium flakes of mica; firm; very strongly acid; clear wavy boundary.

C—74 to 80 inches; brownish yellow (10YR 6/8) loamy fine sand; massive; loose; common fine black iron-manganese concentrations; very strongly acid.

Range in Characteristics

Thickness of the solum: 36 to more than 60 inches
Content of mica flakes: Few to many
Content and size of rock fragments: 0 to 10 percent; mostly rounded gravel
Reaction: Very strongly acid or strongly acid throughout, except where lime has been applied

Ap or A horizon:
Color—hue of 5YR to 10YR, value of 3 to 5, and chroma of 3 to 8
Texture—fine sandy loam, sandy loam, or loam

BA or BE horizon (where present):
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 6 to 8
Texture—fine sandy loam, sandy loam, or loam

Bt horizon:
Color—hue of 2.5YR to 7.5YR, value of 4 to 6, and chroma of 4 to 8
Texture—sandy clay loam, loam, or clay loam

BC horizon:
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 3 to 8
Texture—sandy loam, fine sandy loam, loam, sandy clay loam, loam, or clay loam
Mottles—in shades of brown, yellow, and red

C horizon:
Color—hue of 2.5YR to 10YR, value of 4 to 6, and chroma of 3 to 8
Texture—sandy clay loam to loamy sand and sand
Mottles—in shades of brown, yellow, and red

Wilkes Series

Depth class: Shallow
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately high (about 0.20 in/hr)
Parent material: Residuum weathered from mafic crystalline rock
Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits and backslopes
Slope: 6 to 30 percent
Taxonomic class: Loamy, mixed, active, thermic, shallow Typic Hapludalfs (fig. 12)

Figure 12.—A profile of a Wilkes soil. Wilkes soils formed in residuum weathered from mafic crystalline rock. These shallow, well drained soils have a dark surface layer, which indicates the presence of a significant amount of organic material.

Commonly Associated Soils

- Mecklenburg soils, which are in the higher and more level positions on ridges and have a red subsoil
- Winnsboro soils, which are in the lower, more level positions on shoulders and side slopes and are deep to bedrock
- Wynott soils, which are in positions similar to those of the Wilkes soils and are moderately deep to bedrock

Typical Pedon

Wilkes gravelly loam, in an area of Wynott-Wilkes complex, 15 to 45 percent slopes, very stony; in Tallapoosa County, Alabama, about 1.1 miles northeast of Ponders; 1,700 feet south and 1,875 feet west of the northwest corner of section 9, T. 20 N., R. 23 E.; USGS Dadeville topographic quadrangle; lat. 32 degrees 44 minutes 08 seconds N. and long. 85 degrees 45 minutes 22 seconds W.

A—0 to 4 inches; dark grayish brown (2.5Y 4/2) gravelly sandy loam; weak fine granular structure; very friable; common fine, medium, and coarse roots; 25 percent angular gravel; strongly acid; clear wavy boundary.

BE—4 to 9 inches; olive (5Y 5/3) gravelly sandy loam; weak fine granular structure; very friable; common fine and medium roots; 20 percent angular gravel; moderately acid; clear wavy boundary.

Bt—9 to 15 inches; yellowish brown (10YR 5/6) clay; moderate medium subangular blocky structure; firm; common fine and medium and few coarse roots; common clay films on faces of peds; slightly acid; abrupt irregular boundary.

Cr—15 to 80 inches; fractured, highly weathered mafic rock.

Range in Characteristics

Thickness of the solum: 10 to 20 inches
Depth to bedrock: 10 to 20 inches
Content and size of rock fragments: 0 to 50 percent in the A, E, and BE horizons and 0 to 35 percent in the B horizon; mostly gravel or cobbles
Reaction: Strongly acid to slightly alkaline throughout

Ap horizon:
Color—hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 6
Texture—sandy loam or loam or their gravelly analogues

E or BE horizon (where present):
Color—hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 8
Texture—gravelly sandy loam

Bt horizon:
Color—hue of 5YR to 2.5Y, value of 4 to 6, and chroma of 4 to 8
Texture—loam, sandy clay loam, clay loam, or clay

C horizon (where present):
Color—variegated in shades of black, green, brown, and gray
Texture—loam, fine sandy loam, or sandy loam saprolite

Cr layer:
Type of bedrock—fractured, weathered intermediate or mafic crystalline rock

Winnsboro Series

Depth class: Deep
Drainage class: Well drained

Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Parent material: Residuum weathered from mafic crystalline rock
Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits and backslopes
Slope: 6 to 15 percent
Taxonomic class: Fine, mixed, active, thermic Typic Hapludalfs (fig. 13)

Commonly Associated Soils

- Mecklenburg soils, which are in the higher, more level positions on ridges and have a red subsoil
- Wilkes soils, which are in the more convex positions on shoulders and are deep to bedrock
- Wynott soils, which are in positions similar to those of the Winnsboro soils and are moderately deep to bedrock

Typical Pedon

Winnsboro very gravelly sandy loam, in an area of Wynott-Winnsboro complex, 6 to 15 percent slopes, very stony; in Tallapoosa County, Alabama, about 2.0 miles northeast of Alabama Highway 50; 1,200 feet north and 1,600 feet west of the southeast corner of section 13, T. 20 N., R. 22 E.; USGS Ponders topographic quadrangle; lat. 32 degrees 42 minutes 53 seconds N. and long. 85 degrees 48 minutes 19 seconds W.

A—0 to 6 inches; brown (10YR 4/3) very gravelly sandy loam; moderate fine granular structure; very friable; common medium and few coarse roots; about 45 percent angular gravel and about 5 percent cobbles; moderately acid; clear smooth boundary.
BE—6 to 12 inches; brown (10YR 5/4) gravelly sandy clay loam; moderate fine subangular blocky structure; friable; common fine and medium roots; about 15 percent angular gravel; moderately acid; clear wavy boundary.
Bt—12 to 32 inches; strong brown (7.5YR 5/6) clay; moderate medium subangular blocky structure; firm; common fine and few medium roots; common clay films on faces of peds; slightly acid; gradual wavy boundary.
BC—32 to 40 inches; about 60 percent yellowish brown (10YR 5/8) and about 40 percent light olive brown (2.5Y 5/3) clay loam; weak medium subangular blocky structure; firm; few clay films on faces of peds; neutral; clear smooth boundary.
C—40 to 56 inches; light olive brown (2.5Y 5/6) sandy clay loam saprolite; massive; friable; common medium iron-manganese concentrations; neutral; abrupt irregular boundary.
Cr—56 to 80 inches; highly weathered mafic rock that crushes to sandy loam.

Range in Characteristics

Thickness of the solum: 40 to 60 inches
Depth to bedrock: Soft bedrock at a depth of 40 to 60 inches and hard bedrock at a depth of more than 60 inches
Content and size of rock fragments: 15 to 35 percent in the A, E, and BE horizons and 0 to 35 percent in the B horizon; mostly gravel or cobbles
Reaction: Strongly acid to slightly acid in the A horizon and slightly acid to mildly alkaline in the B and C horizons

A or Ap horizon:
Color—hue of 7.5YR to 2.5Y, value of 3 to 5, and chroma of 2 to 4
Texture—fine sandy loam or sandy loam or their very gravelly analogues

Figure 13.—A profile of a Winnsboro soil. Winnsboro soils formed in residuum weathered from mafic crystalline rock. These deep, well drained soils have tilted, choritic schist bedrock at a depth of 40 to 60 inches.

E or BE horizon (where present):
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 2 to 8
Texture—loam, silt loam, sandy loam, or sandy clay loam

Bt horizon:
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 4 to 8
Texture—clay loam or clay

BC horizon (where present):
Color—hue of 7.5YR to 2.5Y, value of 5 or 6, and chroma of 4 to 8
Texture—sandy clay loam, clay loam, or loam

C horizon:
Color—hue of 7.5YR to 2.5Y, value of 5 to 6, and chroma of 4 to 8; or is variegated in shades of brown, yellow, black, and white
Texture (fine-earth fraction)—sandy loam, loam, or silt loam saprolite

Cr layer:
Type of bedrock—fractured, weathered intermediate or mafic crystalline rock

Wynott Series

Depth class: Moderately deep
Drainage class: Well drained
Slowest saturated hydraulic conductivity: Moderately low (about 0.06 in/hr)
Parent material: Residuum weathered from mafic crystalline rock
Landscape: Piedmont
Landform: Ridges and hillslopes
Landform position: Summits and backslopes
Slope: 6 to 30 percent
Taxonomic class: Fine, mixed, active, thermic Typic Hapludalfs

Commonly Associated Soils

- Mecklenburg soils, which are in the higher and more level positions on ridges and have a red subsoil
- Winnsboro soils, which are in positions similar to those of the Wynott soils and are deep to bedrock
- Wilkes soils, which are in the more convex positions on shoulders and are shallow to bedrock

Typical Pedon

Wynott gravelly sandy loam, in an area of Enon-Wynott complex, 2 to 6 percent slopes; in Tallapoosa County, Alabama, about 2.0 miles northeast of Alabama Highway 50; 1,500 feet north and 1,300 feet west of the southeast corner of section 13, T. 20 N., R. 22 E.; USGS Ponders topographic quadrangle; lat. 32 degrees 42 minutes 53.7 seconds N. and long. 85 degrees 48 minutes 17.4 seconds W.

A—0 to 8 inches; brown (10YR 4/3) gravelly sandy loam; weak fine granular structure; very friable; common fine, medium, and coarse roots; 25 percent angular gravel and 5 percent cobbles; strongly acid; clear wavy boundary.
BE—8 to 12 inches; light olive brown (2.5Y 5/3) gravelly sandy loam; moderate medium granular structure; very friable; common fine and medium roots; 15 percent angular gravel and 5 percent cobbles; strongly acid; clear wavy boundary.
Bt1—12 to 23 inches; yellowish brown (10YR 5/6) clay; strong medium subangular blocky structure; firm; common fine and medium and few coarse roots; common clay films on faces of peds; slightly acid; gradual wavy boundary.

Bt2—23 to 32 inches; yellowish brown (10YR 5/6) clay; moderate medium subangular blocky structure; firm; common fine and medium and few coarse roots; common clay films on faces of peds; slightly acid; gradual wavy boundary.

BC—32 to 38 inches; variegated yellowish brown (10YR 5/8), brownish yellow (10YR 6/6), white (10YR 8/1), and strong brown (7.5YR 5/6) clay loam; weak course subangular blocky structure; friable; few medium roots; pockets of clay and loam; few clay films on faces of peds; slightly acid; abrupt irregular boundary.

Cr—38 to 80 inches; highly weathered mafic rock.

Range in Characteristics

Thickness of the solum: 20 to 40 inches

Depth to bedrock: Soft bedrock at a depth of 20 to 40 inches and hard bedrock at a depth of 40 to more than 60 inches

Content and size of rock fragments: 0 to 35 percent in the A, E, and BE horizons and 0 to 35 percent in the B horizon; mostly gravel or cobbles

Reaction: Very strongly acid to slightly acid throughout, except where lime has been applied

Ap or A horizon:
Color—hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 2 to 8
Texture—fine sandy loam or sandy loam or their gravelly analogues

E horizon (where present):
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 6
Texture—loam, silt loam, sandy loam, or fine sandy loam

BE or EB horizon (where present):
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 6
Texture—loam, sandy loam, or sandy clay loam

Bt horizon:
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 4 to 8
Texture—clay loam, silty clay, sandy clay, or clay

BC horizon (where present):
Color—hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 4 to 8; or is variegated in shades of brown, yellow, and white
Texture—sandy clay, sandy clay loam, clay loam, or loam

C horizon (where present):
Color—variegated in shades of brown, yellow, black, and white
Texture—variable; commonly sandy loam, loam, or silt loam saprolite

Cr layer:
Type of bedrock—weathered intermediate or mafic crystalline rock

Formation of the Soils

In this section, the factors of soil formation are related to the soils in Coosa County and the processes of horizon differentiation are explained.

Factors of Soil Formation

Soil is a natural, three-dimensional body on the earth's surface that supports plants. Soil forms through weathering and other processes that act on deposited or accumulated geologic material. The kind of soil that forms depends on the type of parent material; the climate under which soil material has existed since accumulation; the relief, or lay of the land; the plant and animal life in and on the soil; and the length of time that the forces of soil formation have acted on the soil material. The relative importance of each of these factors differs from place to place; in some areas one factor is more important, and in other areas another factor may dominate. A modification or variation in any of the factors results in a different kind of soil (Jenny, 1941; Buol and others, 1980).

Climate and living organisms are the active factors of soil formation. They act on parent material and change it into a natural body that has definite characteristics. The effects of climate and living organisms are conditioned by relief, which influences surface drainage, the amount of water that percolates through the soil, the rate of erosion, and the kind of vegetation that grows on the soil. The nature of the parent material also affects the kind of soil profile that is formed. Time is needed for the parent material to change into a soil. The development of a distinct soil horizon normally requires a long period of time.

Parent Material

Parent material is the initial physical body that is changed by the other soil-forming factors over time. Generally, the younger the soil, the greater the influence of the parent material on soil properties. The nature of the parent material can be expressed in many ways in the soil profile, including color, texture, and mineralogy. These properties can be related to physical and chemical properties, such as susceptibility to erosion, shrink-swell potential, and cation-exchange capacity.

The soils in Coosa County formed mainly in five kinds of parent material: materials weathered from acid crystalline rocks, materials weathered from basic crystalline rocks, materials weathered from phyllite or sericite schist, loamy and clayey marine sediments that have undergone considerable weathering in place, and water-deposited material on stream terraces and flood plains. Cecil, Hard Labor, Louisa, Louisburg, Madison, Pacolet, Rion, and Wedowee soils formed in material weathered from acid crystalline rocks (fig. 14). Enon, Mecklenburg, Wilkes, Winnsboro, and Wynott soils formed in material weathered from basic crystalline rocks. Badin, Fruithurst, Tallapoosa, and Tatum soils formed in material weathered from phyllite or sericite schist. Springhill soils formed in weathered loamy and clayey marine sediments. Altavista and Wickham soils formed in water-deposited material on stream terraces and Cartecay, Chewacla, and Wehadkee soils formed in water-deposited material on flood plains.

Figure 14.—Exposed granite diorite on a very steep slope off of Hatchet Creek, just north of Rockford. Soils derived from granite diorite on steep landscapes include the Louisburg, Pacolet, and Wedowee soils.

Climate

The climate of Coosa County is warm and humid. Summers are long and hot. Winters are short and mild, and the ground rarely freezes to a depth of more than a few inches. The climate is fairly even throughout the county and accounts for few differences between the soils. Rainfall averages about 56 inches a year. Detailed information about the climate in the county is given in the section "General Nature of the County" and in tables 1, 2, and 3.

The mild, humid climate favors rapid decomposition of organic matter and increases the rate of chemical reactions in the soil. The plentiful rainfall leaches large amounts of soluble bases and carries the less soluble fine particles downward, which results in acid soils that have a sandy surface layer and that are low in natural fertility. The large amount of moisture and the warm temperature favor the growth of bacteria and fungi and speed the decomposition of organic matter, which results in soils that have a low content of organic matter.

Relief

Relief varies significantly in Coosa County and generally can be related to the physiographic regions and geologic units in the county. It ranges from very low on the flood plains and stream terraces to very high in the dissected hills.

Relief influences the formation of soil through its effects on drainage, runoff, and erosion. Soil properties that are influenced by relief include the thickness of the solum, the thickness of the A horizon, the color of the profile, the degree of horizon differentiation, and the relative wetness of the profile. The thickness of the solum is one of the properties most obviously related to relief. Soils on nearly level summits tend to have a thicker solum than that of soils on steep side slopes.

Relief also affects moisture relationships in soil. It affects the depth to ground water and the amount of water that is available for plant growth. Generally, the water table is closer to the surface in depressions than on the high parts of the landscape.

Plants and Animals

Living organisms greatly influence the processes of soil formation and the characteristics of the soils. Trees, grasses, insects, earthworms, rodents, fungi, bacteria, and other forms of plant and animal life are affected by the other soil-forming factors. Animal activity is largely confined to the surface layer of the soil. The soil is continually mixed by the activity of animals, which improves water infiltration. Plant roots create channels through which air and water move more rapidly, thereby improving soil structure and increasing the rate of chemical reactions in the soil.

Micro-organisms help to decompose organic matter, which releases plant nutrients and chemicals into the soil. These nutrients are either used by the plants or are leached from the soil. Human activities that influence plant and animal populations in the soil affect the rate of soil formation.

The native vegetation in Coosa County consists dominantly of loblolly-shortleaf pine and oak-pine forest types in the uplands and oak-hickory and oak-gum forest types in the bottom lands. The understory consists of numerous species, including holly, panicums, bluestems, American beautyberry, Indiangrass, longleaf uniola, and flowering dogwood. These species represent only a very limited number of the wide variety of plants native to the county, but they can be used as a guide to plants presently in the county.

The plant communities in the county are also reflected in the species distribution of fauna. Animals, in turn, have an impact on the soil properties of a particular area. For example, ants, worms, moles, armadillos, and gophers can improve aeration in a compacted soil. Microbes that thrive in a particular plant community react to various soil conditions and consequently influence the soil profile by providing decayed organic matter and nitrogen to the soil matrix.

Time

If all other factors of soil formation are equal, the degree of soil formation is in direct proportion to time. If soil-forming factors have been active for a long time, horizon development is stronger than if these same factors have been active for a relatively short time.

Some parent materials are more easily weathered than others. The rate of weathering is dependent on the mineral composition and the degree of consolidation of the parent material. “Time zero” for soil formation is considered to be that point in time when fresh parent material is first exposed to the other soil-forming factors. Commonly, this is a catastrophic occurrence, such as a flood, a change in topography resulting from a geologic event, a severe episode of erosion, or the influence of humans on the landscape.

The youngest soils in the survey area are the alluvial soils on active flood plains along streams and rivers. These soils receive deposits of sediment and are undergoing a cumulative soil-forming process. In most cases these young soils have weakly defined horizons, which is primarily because the soil-forming processes have been active for only a short time. Cartecay, Chewacla, Shellbluff, Toccoa, and Wehadkee soils are examples of young soils.

Soils on terraces along the major streams are older than soils on flood plains but are still relatively young. Although they formed in material deposited by the river, these soils are no longer reached by frequent overflows because the river channel is now deeper. Many of these soils have relatively strong horizon development. Altavista, Locust, and Wickham soils are examples of soils on stream terraces that have varying ages and elevations.

Soils on uplands generally are older than soils on terraces or flood plains and range in age from old to very old. The degree of soil development depends on landscape position and composition of the parent material. Cecil, Fruithurst, Madison, Townley, and Pacolet soils are examples of soils on uplands.

Processes of Horizon Differentiation

The main processes involved in the formation of soil horizons are accumulation of organic matter, leaching of calcium carbonate and other bases, reduction and transfer of iron, and formation and translocation of silicate clay minerals. These processes can occur in combination or individually, depending on the integration of the factors of soil formation.

Most soils have four main horizons. The A horizon is the surface layer. It is the horizon of maximum accumulation of organic matter. It commonly is darker than horizons below it because of the influence of the organic matter. Organic matter has accumulated to form an A horizon in all of the soils in the county. The content of organic matter varies between soils because of differences in relief, wetness, and natural fertility.

The E horizon, usually called the subsurface layer, occurs in many of the soils in the county, especially those soils on uplands. It is the horizon of maximum loss of soluble or suspended material. It commonly is lighter in color and coarser in texture than the overlying and underlying horizons. Louisburg and Pacolet soils have both an A horizon and an E horizon. Other soils have an A horizon but do not have an E horizon. Examples are Chewacla, Cartecay, and Wehadkee soils.

The B horizon, which is usually called the subsoil, is immediately below the A or E horizon. It is the horizon of maximum accumulation of dissolved or suspended material, such as iron or clay. Soils on old, stable landforms generally have a thick, well structured B horizon. Examples are Cecil and Madison soils. Soils on flood plains either do not have a B horizon or have a weakly developed B horizon.

The C horizon is the substratum. It has been affected very little by the soil forming processes, but it may be somewhat modified by weathering.

The chemical reduction and transfer of iron, called gleying, is evident in the wet soils in the county. Gleying results in gray colors in the subsoil and other horizons. The gray colors indicate the reduction and loss of iron and manganese. The horizons of some soils, such as Altavista soils, have reddish and brownish redoximorphic features, which indicate a segregation of iron.

Leaching of carbonates and bases has occurred in most of the soils in the county. This process contributes to the development of distinct horizons and to the naturally low fertility and acid reaction of most soils in the Piedmont and Coastal Plain.

Soils that formed under good drainage conditions have a subsoil that is uniformly bright in color. Pacolet and Rion soils are examples. Soils that formed under poor drainage conditions have grayish colors. Wehadkee soils are examples. Soils that formed where drainage is intermediate have a subsoil that is mottled in shades of gray, red, and brown. Altavista and Hard Labor soils are examples. The grayish colors persist even if artificial drainage is provided.

In steep areas, the surface soil erodes. In low areas and in depressions, soil materials commonly accumulate and add to the thickness of the surface layer. In some areas, the rate of formation of soil materials and the rate of removal of soil materials are in equilibrium. The eluviation of clay from the E horizon to the Bt horizon is also related to the degree of relief.

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Glossary

Many of the terms relating to landforms, geology, and geomorphology are defined in more detail in the “National Soil Survey Handbook” (available in local offices of the Natural Resources Conservation Service or on the Internet).

ABC soil. A soil having an A, a B, and a C horizon.

AC soil. A soil having only an A and a C horizon. Commonly, such soil formed in recent alluvium or on steep, rocky slopes.

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvial fan. A low, outspread mass of loose materials and/or rock material, commonly with gentle slopes. It is shaped like an open fan or a segment of a cone. The material was deposited by a stream at the place where it issues from a narrow mountain valley or upland valley or where a tributary stream is near or at its junction with the main stream. The fan is steepest near its apex, which points upstream, and slopes gently and convexly outward (downstream) with a gradual decrease in gradient.

Alluvium. Unconsolidated material, such as gravel, sand, silt, clay, and various mixtures of these, deposited on land by running water.

Alpha,alpha-dipyridyl. A compound that when dissolved in ammonium acetate is used to detect the presence of reduced iron (Fe II) in the soil. A positive reaction implies reducing conditions and the likely presence of redoximorphic features.

Animal unit month (AUM). The amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

Aquic conditions. Current soil wetness characterized by saturation, reduction, and redoximorphic features.

Argillic horizon. A subsoil horizon characterized by an accumulation of illuvial clay.

Aspect. The direction toward which a slope faces. Also called slope aspect.

Available water capacity (available moisture capacity). The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field moisture capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. The capacity, in inches, in a 60-inch profile or to a limiting layer is expressed as:

Very low	0 to 3
Low	3 to 6
Moderate	6 to 9
High	9 to 12
Very high	more than 12

Backslope. The position that forms the steepest and generally linear, middle portion of a hillslope. In profile, backslopes are commonly bounded by a convex shoulder above and a concave footslope below.

Basal area. The area of a cross section of a tree, generally referring to the section at breast height and measured outside the bark. It is a measure of stand density, commonly expressed in square feet.

Base saturation. The degree to which material having cation-exchange properties is saturated with exchangeable bases (sum of Ca, Mg, Na, and K), expressed as a percentage of the total cation-exchange capacity.

Bedding plane. A planar or nearly planar bedding surface that visibly separates each successive layer of stratified sediment or rock (of the same or different lithology) from the preceding or following layer; a plane of deposition. It commonly marks a change in the circumstances of deposition and may show a parting, a color difference, a change in particle size, or various combinations of these. The term is commonly applied to any bedding surface, even one that is conspicuously bent or deformed by folding.

Bedding system. A drainage system made by plowing, grading, or otherwise shaping the surface of a flat field. It consists of a series of low ridges separated by shallow, parallel dead furrows.

Bedrock. The solid rock that underlies the soil and other unconsolidated material or that is exposed at the surface.

Bedrock-controlled topography. A landscape where the configuration and relief of the landforms are determined or strongly influenced by the underlying bedrock.

Bench terrace. A raised, level or nearly level strip of earth constructed on or nearly on a contour, supported by a barrier of rocks or similar material, and designed to make the soil suitable for tillage and to prevent accelerated erosion.

Bisequum. Two sequences of soil horizons, each of which consists of an illuvial horizon and the overlying eluvial horizons.

Bottom land. An informal term loosely applied to various portions of a flood plain.

Boulders. Rock fragments larger than 2 feet (60 centimeters) in diameter.

Breast height. An average height of 4.5 feet above the ground surface; the point on a tree where diameter measurements are ordinarily taken.

Brush management. Use of mechanical, chemical, or biological methods to make conditions favorable for reseeding or to reduce or eliminate competition from woody vegetation and thus allow understory grasses and forbs to recover. Brush management increases forage production and thus reduces the hazard of erosion. It can improve the habitat for some species of wildlife.

Cable yarding. A method of moving felled trees to a nearby central area for transport to a processing facility. Most cable yarding systems involve use of a drum, a pole, and wire cables in an arrangement similar to that of a rod and reel used for fishing. To reduce friction and soil disturbance, felled trees generally are reeled in while one end is lifted or the entire log is suspended.

Calcareous soil. A soil containing enough calcium carbonate (commonly combined with magnesium carbonate) to effervesce visibly when treated with cold, dilute hydrochloric acid.

Canopy. The leafy crown of trees or shrubs. (See Crown.)

Capillary water. Water held as a film around soil particles and in tiny spaces between particles. Surface tension is the adhesive force that holds capillary water in the soil.

Catena. A sequence, or "chain," of soils on a landscape that formed in similar kinds of parent material and under similar climatic conditions but that have different characteristics as a result of differences in relief and drainage.

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity but is more precise in meaning.

Channery soil material. Soil material that has, by volume, 15 to 35 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches (15 centimeters) along the longest axis. A single piece is called a channer.

Chemical treatment. Control of unwanted vegetation through the use of chemicals.

Chiseling. Tillage with an implement having one or more soil-penetrating points that shatter or loosen hard, compacted layers to a depth below normal plow depth.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay depletions. See Redoximorphic features.

Clay film. A thin coating of oriented clay on the surface of a soil aggregate or lining pores or root channels. Synonyms: clay coating, clay skin.

Climax plant community. The stabilized plant community on a particular site. The plant cover reproduces itself and does not change so long as the environment remains the same.

Coarse textured soil. Sand or loamy sand.

Cobble (or cobblestone). A rounded or partly rounded fragment of rock 3 to 10 inches (7.6 to 25 centimeters) in diameter.

Cobbly soil material. Material that has 15 to 35 percent, by volume, rounded or partially rounded rock fragments 3 to 10 inches (7.6 to 25 centimeters) in diameter. Very cobbly soil material has 35 to 60 percent of these rock fragments, and extremely cobbly soil material has more than 60 percent.

COLE (coefficient of linear extensibility). See Linear extensibility.

Complex slope. Irregular or variable slope. Planning or establishing terraces, diversions, and other water-control structures on a complex slope is difficult.

Complex, soil. A map unit of two or more kinds of soil or miscellaneous areas in such an intricate pattern or so small in area that it is not practical to map them separately at the selected scale of mapping. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas.

Concretions. See Redoximorphic features.

Conservation cropping system. Growing crops in combination with needed cultural and management practices. In a good conservation cropping system, the soil-improving crops and practices more than offset the effects of the soil-depleting crops and practices. Cropping systems are needed on all tilled soils. Soil-improving practices in a conservation cropping system include the use of rotations that contain grasses and legumes and the return of crop residue to the soil. Other practices include the use of green manure crops of grasses and legumes, proper tillage, adequate fertilization, and weed and pest control.

Conservation tillage. A tillage system that does not invert the soil and that leaves a protective amount of crop residue on the surface throughout the year.

Consistence, soil. Refers to the degree of cohesion and adhesion of soil material and its resistance to deformation when ruptured. Consistence includes resistance of soil material to rupture and to penetration; plasticity, toughness, and stickiness of puddled soil material; and the manner in which the soil material behaves when subject to compression. Terms describing consistence are defined in the “Soil Survey Manual.”

Contour stripcropping. Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.

Control section. The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.

Corrosion (soil survey interpretations). Soil-induced electrochemical or chemical action that dissolves or weakens concrete or uncoated steel.

Cover crop. A close-growing crop grown primarily to improve and protect the soil between periods of regular crop production, or a crop grown between trees and vines in orchards and vineyards.

Crop residue management. Returning crop residue to the soil, which helps to maintain soil structure, organic matter content, and fertility and helps to control erosion.

Cropping system. Growing crops according to a planned system of rotation and management practices.

Cross-slope farming. Deliberately conducting farming operations on sloping farmland in such a way that tillage is across the general slope.

Crown. The upper part of a tree or shrub, including the living branches and their foliage.

Culmination of the mean annual increment (CMAI). The average annual increase per acre in the volume of a stand. Computed by dividing the total volume of the stand by its age. As the stand increases in age, the mean annual increment continues to increase until mortality begins to reduce the rate of increase. The point where the stand reaches its maximum annual rate of growth is called the culmination of the mean annual increment.

Cutbanks cave (in tables). The walls of excavations tend to cave in or slough.

Decreasers. The most heavily grazed climax range plants. Because they are the most palatable, they are the first to be destroyed by overgrazing.

Deferred grazing. Postponing grazing or resting grazing land for a prescribed period.

Dense layer (in tables). A very firm, massive layer that has a bulk density of more than 1.8 grams per cubic centimeter. Such a layer affects the ease of digging and can affect filling and compacting.

Depth, soil. Generally, the thickness of the soil over bedrock. Very deep soils are more than 60 inches deep over bedrock; deep soils, 40 to 60 inches; moderately deep, 20 to 40 inches; shallow, 10 to 20 inches; and very shallow, less than 10 inches.

Diversion (or diversion terrace). A ridge of earth, generally a terrace, built to protect downslope areas by diverting runoff from its natural course.

Divided-slope farming. A form of field stripcropping in which crops are grown in a systematic arrangement of two strips, or bands, across the slope to reduce the hazard of water erosion. One strip is in a close-growing crop that provides protection from erosion, and the other strip is in a crop that provides less protection from erosion. This practice is used where slopes are not long enough to permit a full stripcropping pattern to be used.

Drainage class (natural). Refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized—*excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained,* and *very poorly drained*. These classes are defined in the “Soil Survey Manual.”

Drainage, surface. Runoff, or surface flow of water, from an area.

Drainageway. A general term for a course or channel along which water moves in draining an area. A term restricted to relatively small, linear depressions that at some time move concentrated water and either do not have a defined channel or have only a small defined channel.

Draw. A small stream valley that generally is shallower and more open than a ravine or gulch and that has a broader bottom. The present stream channel may appear inadequate to have cut the drainageway that it occupies.

Duff. A generally firm organic layer on the surface of mineral soils. It consists of fallen plant material that is in the process of decomposition and includes everything from the litter on the surface to underlying pure humus.

Eluviation. The movement of material in true solution or colloidal suspension from one place to another within the soil. Soil horizons that have lost material through eluviation are eluvial; those that have received material are illuvial.

Endosaturation. A type of saturation of the soil in which all horizons between the upper boundary of saturation and a depth of 2 meters are saturated.

Ephemeral stream. A stream, or reach of a stream, that flows only in direct response to precipitation. It receives no long-continued supply from melting snow or other source, and its channel is above the water table at all times.

Episaturation. A type of saturation indicating a perched water table in a soil in which saturated layers are underlain by one or more unsaturated layers within 2 meters of the surface.

Erosion. The wearing away of the land surface by water, wind, ice, or other geologic agents and by such processes as gravitational creep.

Erosion (geologic). Erosion caused by geologic processes acting over long geologic periods and resulting in the wearing away of mountains and the building up of such landscape features as flood plains and coastal plains. Synonym: natural erosion.

Erosion (accelerated). Erosion much more rapid than geologic erosion, mainly as a result of human or animal activities or of a catastrophe in nature, such as a fire, that exposes the surface.

Erosion pavement. A surficial lag concentration or layer of gravel and other rock fragments that remains on the soil surface after sheet or rill erosion or wind has removed the finer soil particles and that tends to protect the underlying soil from further erosion.

Erosion surface. A land surface shaped by the action of erosion, especially by running water.

Escarpment. A relatively continuous and steep slope or cliff breaking the general continuity of more gently sloping land surfaces and resulting from erosion or faulting. Most commonly applied to cliffs produced by differential erosion. Synonym: scarp.

Fallow. Cropland left idle in order to restore productivity through accumulation of moisture. Summer fallow is common in regions of limited rainfall where cereal grain is grown. The soil is tilled for at least one growing season for weed control and decomposition of plant residue.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Field moisture capacity. The moisture content of a soil, expressed as a percentage of the ovendry weight, after the gravitational, or free, water has drained away; the field moisture content 2 or 3 days after a soaking rain; also called *normal field capacity, normal moisture capacity,* or *capillary capacity*.

Fill slope. A sloping surface consisting of excavated soil material from a road cut. It commonly is on the downhill side of the road.

Fine textured soil. Sandy clay, silty clay, or clay.

Firebreak. An area cleared of flammable material to stop or help control creeping or running fires. It also serves as a line from which to work and to facilitate the movement of firefighters and equipment. Designated roads also serve as firebreaks.

First bottom. An obsolete, informal term loosely applied to the lowest flood-plain steps that are subject to regular flooding.

Flood plain. The nearly level plain that borders a stream and is subject to flooding unless protected artificially.

Flood-plain landforms. A variety of constructional and erosional features produced by stream channel migration and flooding. Examples include backswamps, flood-plain splays, meanders, meander belts, meander scrolls, oxbow lakes, and natural levees.

Fluvial. Of or pertaining to rivers or streams; produced by stream or river action.

Footslope. The concave surface at the base of a hillslope. A footslope is a transition zone between upslope sites of erosion and transport (shoulders and backslopes) and downslope sites of deposition (toeslopes).

Forb. Any herbaceous plant not a grass or a sedge.

Forest cover. All trees and other woody plants (underbrush) covering the ground in a forest.

Forest type. A stand of trees similar in composition and development because of given physical and biological factors by which it may be differentiated from other stands.

Genesis, soil. The mode of origin of the soil. Refers especially to the processes or soil-forming factors responsible for the formation of the solum, or true soil, from the unconsolidated parent material.

Gilgai. Commonly, a succession of microbasins and microknolls in nearly level areas or of microvalleys and microridges parallel with the slope. Typically, the microrelief of clayey soils that shrink and swell considerably with changes in moisture content.

Gleyed soil. Soil that formed under poor drainage, resulting in the reduction of iron and other elements in the profile and in gray colors.

Graded stripcropping. Growing crops in strips that grade toward a protected waterway.

Grassed waterway. A natural or constructed waterway, typically broad and shallow, seeded to grass as protection against erosion. Conducts surface water away from cropland.

Gravel. Rounded or angular fragments of rock as much as 3 inches (2 millimeters to 7.6 centimeters) in diameter. An individual piece is a pebble.

Gravelly soil material. Material that has 15 to 35 percent, by volume, rounded or angular rock fragments, not prominently flattened, as much as 3 inches (7.6 centimeters) in diameter.

Green manure crop (agronomy). A soil-improving crop grown to be plowed under in an early stage of maturity or soon after maturity.

Ground water. Water filling all the unblocked pores of the material below the water table.

Gully. A small channel with steep sides caused by erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. The distinction between a gully and a rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by ordinary tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage.

Hard bedrock. Bedrock that cannot be excavated except by blasting or by the use of special equipment that is not commonly used in construction.

Hard to reclaim (in tables). Reclamation is difficult after the removal of soil for construction and other uses. Revegetation and erosion control are extremely difficult.

Hill. A generic term for an elevated area of the land surface, rising as much as 1,000 feet above surrounding lowlands, commonly of limited summit area and having a well defined outline. Slopes are generally more than 15 percent. The distinction between a hill and a mountain is arbitrary and may depend on local usage.

Hillslope. A generic term for the steeper part of a hill between its summit and the drainage line, valley flat, or depression floor at the base of a hill.

Horizon, soil. A layer of soil, approximately parallel to the surface, having distinct characteristics produced by soil-forming processes. In the identification of soil horizons, an uppercase letter represents the major horizons. Numbers or lowercase letters that follow represent subdivisions of the major horizons. An explanation of the subdivisions is given in the "Soil Survey Manual." The major horizons of mineral soil are as follows:

O horizon.—An organic layer of fresh and decaying plant residue.

A horizon.—The mineral horizon at or near the surface in which an accumulation of humified organic matter is mixed with the mineral material. Also, a plowed surface horizon, most of which was originally part of a B horizon.

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of transition from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics, such as (1) accumulation of clay, sesquioxides, humus, or a combination of these; (2) prismatic or blocky structure; (3) redder or browner colors than those in the A horizon; or (4) a combination of these.

C horizon.—The mineral horizon or layer, excluding indurated bedrock, that is little affected by soil-forming processes and does not have the properties typical of the overlying soil material. The material of a C horizon may be either like or unlike that in which the solum formed. If the material is known to differ from that in the solum, an Arabic numeral, commonly a 2, precedes the letter C.

Cr horizon.—Soft, consolidated bedrock beneath the soil.

R layer.—Consolidated bedrock beneath the soil. The bedrock commonly underlies a C horizon, but it can be directly below an A or a B horizon.

Humus. The well decomposed, more or less stable part of the organic matter in mineral soils.

Hydrologic soil groups. Refers to soils grouped according to their runoff potential. The soil properties that influence this potential are those that affect the minimum rate of water infiltration on a bare soil during periods after prolonged wetting when the soil is not frozen. These properties are depth to a seasonal high water table, the infiltration rate and permeability after prolonged wetting, and depth to a very slowly permeable layer. The slope and the kind of plant cover are not considered but are separate factors in predicting runoff.

Igneous rock. Rock that was formed by cooling and solidification of magma and that has not been changed appreciably by weathering since its formation. Major varieties include plutonic and volcanic rock (e.g., andesite, basalt, and granite).

Illuviation. The movement of soil material from one horizon to another in the soil profile. Generally, material is removed from an upper horizon and deposited in a lower horizon.

Impervious soil. A soil through which water, air, or roots penetrate slowly or not at all. No soil is absolutely impervious to air and water all the time.

Increasers. Species in the climax vegetation that increase in amount as the more desirable plants are reduced by close grazing. Increasers commonly are the shorter plants and the less palatable to livestock.

Infiltration. The downward entry of water into the immediate surface of soil or other material, as contrasted with percolation, which is movement of water through soil layers or material.

Infiltration capacity. The maximum rate at which water can infiltrate into a soil under a given set of conditions.

Infiltration rate. The rate at which water penetrates the surface of the soil at any given instant, usually expressed in inches per hour. The rate can be limited by the infiltration capacity of the soil or the rate at which water is applied at the surface.

Intake rate. The average rate of water entering the soil under irrigation. Most soils have a fast initial rate; the rate decreases with application time. Therefore, intake rate for design purposes is not a constant but is a variable depending on the net irrigation application. The rate of water intake, in inches per hour, is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Interfluve. A landform composed of the relatively undissected upland or ridge between two adjacent valleys containing streams flowing in the same general direction. An elevated area between two drainageways that sheds water to those drainageways.

Interfluve (geomorphology). A geomorphic component of hills consisting of the uppermost, comparatively level or gently sloping area of a hill; shoulders of backwearing hillslopes can narrow the upland or can merge, resulting in a strongly convex shape.

Intermittent stream. A stream, or reach of a stream, that does not flow year-round but that is commonly dry for 3 or more months out of 12 and whose channel is generally below the local water table. It flows only during wet periods or when it receives ground-water discharge or long, continued contributions from melting snow or other surface and shallow subsurface sources.

Invaders. On range, plants that encroach into an area and grow after the climax vegetation has been reduced by grazing. Generally, plants invade following disturbance of the surface.

Iron depletions. See Redoximorphic features.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are:

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops or in orchards so that it flows in only one direction.

Drip (or trickle).—Water is applied slowly and under low pressure to the surface of the soil or into the soil through such applicators as emitters, porous tubing, or perforated pipe.

Furrow.—Water is applied in small ditches made by cultivation implements. Furrows are used for tree and row crops.

Sprinkler.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Knoll. A small, low, rounded hill rising above adjacent landforms.

Ksat. See Saturated hydraulic conductivity.

Large stones (in tables). Rock fragments 3 inches (7.6 centimeters) or more across. Large stones adversely affect the specified use of the soil.

Leaching. The removal of soluble material from soil or other material by percolating water.

Linear extensibility. Refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. Linear extensibility is used to determine the shrink-swell potential of soils. It is an expression of the volume change between the water content of the clod at $^1/_3$- or $^1/_{10}$-bar tension (33kPa or 10kPa tension) and oven dryness. Volume change is influenced by the amount and type of clay minerals in the soil. The volume change is the percent change for the whole soil. If it is expressed as a fraction, the resulting value is COLE, coefficient of linear extensibility.

Liquid limit. The moisture content at which the soil passes from a plastic to a liquid state.

Loam. Soil material that is 7 to 27 percent clay particles, 28 to 50 percent silt particles, and less than 52 percent sand particles.

Low strength. The soil is not strong enough to support loads.

Low-residue crops. Such crops as corn used for silage, peas, beans, and potatoes. Residue from these crops is not adequate to control erosion until the next crop in the rotation is established. These crops return little organic matter to the soil.

Mass movement. A generic term for the dislodgment and downslope transport of soil and rock material as a unit under direct gravitational stress.

Masses. See Redoximorphic features.

Mechanical treatment. Use of mechanical equipment for seeding, brush management, and other management practices.

Medium textured soil. Very fine sandy loam, loam, silt loam, or silt.

Metamorphic rock. Rock of any origin altered in mineralogical composition, chemical composition, or structure by heat, pressure, and movement at depth in the earth's crust. Nearly all such rocks are crystalline.

Mineral soil. Soil that is mainly mineral material and low in organic material. Its bulk density is more than that of organic soil.

Minimum tillage. Only the tillage essential to crop production and prevention of soil damage.

Miscellaneous area. A kind of map unit that has little or no natural soil and supports little or no vegetation.

Moderately coarse textured soil. Coarse sandy loam, sandy loam, or fine sandy loam.

Moderately fine textured soil. Clay loam, sandy clay loam, or silty clay loam.

Mollic epipedon. A thick, dark, humus-rich surface horizon (or horizons) that has high base saturation and pedogenic soil structure. It may include the upper part of the subsoil.

Morphology, soil. The physical makeup of the soil, including the texture, structure, porosity, consistence, color, and other physical, mineral, and biological properties of the various horizons, and the thickness and arrangement of those horizons in the soil profile.

Mottling, soil. Irregular spots of different colors that vary in number and size. Descriptive terms are as follows: abundance—*few, common,* and *many;* size—*fine, medium,* and *coarse;* and contrast—*faint, distinct,* and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium,* from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse,* more than 15 millimeters (about 0.6 inch).

Munsell notation. A designation of color by degrees of three simple variables—hue, value, and chroma. For example, a notation of 10YR 6/4 is a color with hue of 10YR, value of 6, and chroma of 4.

Neutral soil. A soil having a pH value of 6.6 to 7.3. (See Reaction, soil.)

Nodules. See Redoximorphic features.

Nutrient, plant. Any element taken in by a plant essential to its growth. Plant nutrients are mainly nitrogen, phosphorus, potassium, calcium, magnesium, sulfur, iron, manganese, copper, boron, and zinc obtained from the soil and carbon, hydrogen, and oxygen obtained from the air and water.

Organic matter. Plant and animal residue in the soil in various stages of decomposition. The content of organic matter in the surface layer is described as follows:

Very low	less than 0.5 percent
Low	0.5 to 1.0 percent
Moderately low	1.0 to 2.0 percent
Moderate	2.0 to 4.0 percent
High	4.0 to 8.0 percent
Very high	more than 8.0 percent

Pan. A compact, dense layer in a soil that impedes the movement of water and the growth of roots. For example, *hardpan, fragipan, claypan, plowpan,* and *traffic pan*.

Parent material. The unconsolidated organic and mineral material in which soil forms.

Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Pedon. The smallest volume that can be called "a soil." A pedon is three dimensional and large enough to permit study of all horizons. Its area ranges from about 10 to 100 square feet (1 square meter to 10 square meters), depending on the variability of the soil.

Percolation. The movement of water through the soil.

Permafrost. Ground, soil, or rock that remains at or below 0 degrees C for at least 2 years. It is defined on the basis of temperature and is not necessarily frozen.

Permeability. See also Saturated hydraulic conductivity. The quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality. In soil physics, the rate is referred to as "saturated hydraulic conductivity." In line with conventional usage in the engineering profession and with traditional usage in published soil surveys, this rate of flow continues to be expressed as "permeability." Terms describing permeability, measured in inches per hour, are as follows:

Extremely slow	0.0 to 0.01 inch
Very slow	0.01 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

pH value. A numerical designation of acidity and alkalinity in soil. (See Reaction, soil.)

Phase, soil. A subdivision of a soil series based on features that affect its use and management, such as slope, stoniness, and flooding.

Piping (in tables). Formation of subsurface tunnels or pipelike cavities by water moving through the soil.

Pitting (in tables). Pits caused by melting around ice. They form on the soil after plant cover is removed.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plinthite. The sesquioxide-rich, humus-poor, highly weathered mixture of clay with quartz and other diluents. It commonly appears as red mottles, usually in platy, polygonal, or reticulate patterns. Plinthite changes irreversibly to an ironstone hardpan or to irregular aggregates on repeated wetting and drying, especially if it is exposed also to heat from the sun. In a moist soil, plinthite can be cut with a spade. It is a form of laterite.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Ponding. Standing water on soils in closed depressions. Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Poorly graded. Refers to a coarse grained soil or soil material consisting mainly of particles of nearly the same size. Because there is little difference in size of the particles, density can be increased only slightly by compaction.

Pore linings. See Redoximorphic features.

Potential native plant community. See Climax plant community.

Potential rooting depth (effective rooting depth). Depth to which roots could penetrate if the content of moisture in the soil were adequate. The soil has no properties restricting the penetration of roots to this depth.

Prescribed burning. Deliberately burning an area for specific management purposes, under the appropriate conditions of weather and soil moisture and at the proper time of day.

Productivity, soil. The capability of a soil for producing a specified plant or sequence of plants under specific management.

Profile, soil. A vertical section of the soil extending through all its horizons and into the parent material.

Proper grazing use. Grazing at an intensity that maintains enough cover to protect the soil and maintain or improve the quantity and quality of the desirable vegetation. This practice increases the vigor and reproduction capacity of the key plants and promotes the accumulation of litter and mulch necessary to conserve soil and water.

Reaction, soil. A measure of acidity or alkalinity of a soil, expressed as pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The degrees of acidity or alkalinity, expressed as pH values, are:

Ultra acid	less than 3.5
Extremely acid	3.5 to 4.4
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Moderately acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Slightly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Redoximorphic concentrations. See Redoximorphic features.

Redoximorphic depletions. See Redoximorphic features.

Redoximorphic features. Redoximorphic features are associated with wetness and result from alternating periods of reduction and oxidation of iron and manganese compounds in the soil. Reduction occurs during saturation with water, and oxidation occurs when the soil is not saturated. Characteristic color patterns are created by these processes. The reduced iron and manganese ions may be removed from a soil if vertical or lateral fluxes of water occur, in which case there is no iron or manganese precipitation in that soil. Wherever the iron and manganese are oxidized and precipitated, they form either soft masses or hard concretions or nodules. Movement of iron and manganese as a result of redoximorphic processes in a soil may result in redoximorphic features that are defined as follows:

1. Redoximorphic concentrations.—These are zones of apparent accumulation of iron-manganese oxides, including:

   A. Nodules and concretions, which are cemented bodies that can be removed from the soil intact. Concretions are distinguished from nodules on the basis of internal organization. A concretion typically has concentric layers that are visible to the naked eye. Nodules do not have visible organized internal structure; *and*

   B. Masses, which are noncemented concentrations of substances within the soil matrix; *and*

   C. Pore linings, i.e., zones of accumulation along pores that may be either coatings on pore surfaces or impregnations from the matrix adjacent to the pores.

2. Redoximorphic depletions.—These are zones of low chroma (chromas less than those in the matrix) where either iron-manganese oxides alone or both iron-manganese oxides and clay have been stripped out, including:

   A. Iron depletions, i.e., zones that contain low amounts of iron and manganese oxides but have a clay content similar to that of the adjacent matrix; *and*

   B. Clay depletions, i.e., zones that contain low amounts of iron, manganese, and clay (often referred to as silt coatings or skeletans).

3. Reduced matrix.—This is a soil matrix that has low chroma *in situ* but undergoes a change in hue or chroma within 30 minutes after the soil material has been exposed to air.

Reduced matrix. See Redoximorphic features.

Regolith. All unconsolidated earth materials above the solid bedrock. It includes material weathered in place from all kinds of bedrock and alluvial, glacial, eolian, lacustrine, and pyroclastic deposits.

Relief. The relative difference in elevation between the upland summits and the lowlands or valleys of a given region.

Residuum (residual soil material). Unconsolidated, weathered or partly weathered mineral material that accumulated as bedrock disintegrated in place.

Rill. A very small, steep-sided channel resulting from erosion and cut in unconsolidated materials by concentrated but intermittent flow of water. A rill generally is not an obstacle to wheeled vehicles and is shallow enough to be smoothed over by ordinary tillage.

Road cut. A sloping surface produced by mechanical means during road construction. It is commonly on the uphill side of the road.

Rock fragments. Rock or mineral fragments having a diameter of 2 millimeters or more; for example, pebbles, cobbles, stones, and boulders.

Root zone. The part of the soil that can be penetrated by plant roots.

Runoff. The precipitation discharged into stream channels from an area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface streams is called ground-water runoff or seepage flow from ground water.

Sand. As a soil separate, individual rock or mineral fragments from 0.05 millimeter to 2.0 millimeters in diameter. Most sand grains consist of quartz. As a soil textural class, a soil that is 85 percent or more sand and not more than 10 percent clay.

Sandstone. Sedimentary rock containing dominantly sand-sized particles.

Sapric soil material (muck). The most highly decomposed of all organic soil material. Muck has the least amount of plant fiber, the highest bulk density, and the lowest water content at saturation of all organic soil material.

Saturated hydraulic conductivity (Ksat). The ease with which pores of a saturated soil transmit water. Formally, the proportionality coefficient that expresses the relationship of the rate of water movement to hydraulic gradient in Darcy's Law, a law that describes the rate of water movement through porous media. Commonly abbreviated as "Ksat." Terms describing saturated hydraulic conductivity are *very high*, 100 or more micrometers per second (14.17 or more inches per hour); *high*, 10 to 100 micrometers per second (1.417 to 14.17 inches per hour); *moderately high*, 1 to 10 micrometers per second (0.1417 inch to 1.417 inches per hour); *moderately low*, 0.1 to 1 micrometer per second (0.01417 to 0.1417 inch per hour); *low*, 0.01 to 0.1 micrometer per second (0.001417 to 0.01417 inch per hour); and *very low*, less than 0.01 micrometer per second (less than 0.001417 inch per hour). To convert inches per hour to micrometers per second, multiply inches per hour by 7.0572. To convert micrometers per second to inches per hour, multiply micrometers per second by 0.1417.

Saturation. Wetness characterized by zero or positive pressure of the soil water. Under conditions of saturation, the water will flow from the soil matrix into an unlined auger hole.

Sedimentary rock. A consolidated deposit of clastic particles, chemical precipitates, or organic remains accumulated at or near the surface of the earth under normal low temperature and pressure conditions. Sedimentary rocks include consolidated equivalents of alluvium, colluvium, drift, and eolian, lacustrine, and marine deposits. Examples are sandstone, siltstone, mudstone, claystone, shale, conglomerate, limestone, dolomite, and coal.

Sequum. A sequence consisting of an illuvial horizon and the overlying eluvial horizon. (See Eluviation.)

Series, soil. A group of soils that have profiles that are almost alike, except for differences in texture of the surface layer. All the soils of a series have horizons that are similar in composition, thickness, and arrangement.

Shale. Sedimentary rock that formed by the hardening of a deposit of clay, silty clay, or silty clay loam and that has a tendency to split into thin layers.

Sheet erosion. The removal of a fairly uniform layer of soil material from the land surface by the action of rainfall and surface runoff.

Shoulder. The convex, erosional surface near the top of a hillslope. A shoulder is a transition from summit to backslope.

Shrink-swell (in tables). The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Shrub-coppice dune. A small, streamlined dune that forms around brush and clump vegetation.

Silica. A combination of silicon and oxygen. The mineral form is called quartz.

Silt. As a soil separate, individual mineral particles that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Similar soils. Soils that share limits of diagnostic criteria, behave and perform in a similar manner, and have similar conservation needs or management requirements for the major land uses in the survey area.

Site index. A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in a fully stocked stand at the age of 50 years is 75 feet, the site index is 75.

Slickensides (pedogenic). Grooved, striated, and/or glossy (shiny) slip faces on structural peds, such as wedges; produced by shrink-swell processes, most commonly in soils that have a high content of expansive clays.

Slope. The inclination of the land surface from the horizontal. Percentage of slope is the vertical distance divided by horizontal distance, then multiplied by 100. Thus, a slope of 20 percent is a drop of 20 feet in 100 feet of horizontal distance. In this survey, classes for simple slopes are as follows:

Level	0 to 1 percent
Nearly level	0 to 2 percent
Very gently sloping	1 to 3 percent
Gently sloping	2 to 5 percent
Moderately sloping	5 to 8 percent
Strongly sloping	8 to 15 percent
Moderately steep	15 to 25 percent
Steep	25 to 35 percent
Very steep	35 percent and higher

Slow refill (in tables). The slow filling of ponds, resulting from restricted permeability in the soil.

Soft bedrock. Bedrock that can be excavated with trenching machines, backhoes, small rippers, and other equipment commonly used in construction.

Soil. A natural, three-dimensional body at the earth's surface. It is capable of supporting plants and has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief and by the passage of time.

Soil separates. Mineral particles less than 2 millimeters in equivalent diameter and ranging between specified size limits. The names and sizes, in millimeters, of separates recognized in the United States are as follows:

Very coarse sand	2.0 to 1.0
Coarse sand	1.0 to 0.5
Medium sand	0.5 to 0.25
Fine sand	0.25 to 0.10
Very fine sand	0.10 to 0.05
Silt	0.05 to 0.002
Clay	less than 0.002

Solum. The upper part of a soil profile, above the C horizon, in which the processes of soil formation are active. The solum in soil consists of the A, E, and B horizons. Generally, the characteristics of the material in these horizons are unlike those of the material below the solum. The living roots and plant and animal activities are largely confined to the solum.

Stone line. In a vertical cross section, a line formed by scattered fragments or a discrete layer of angular and subangular rock fragments (commonly a gravel- or cobble-sized lag concentration) that formerly was draped across a topographic surface and was later buried by additional sediments. A stone line generally caps material that was subject to weathering, soil formation, and erosion before burial. Many stone lines seem to be buried erosion pavements, originally formed by sheet and rill erosion across the land surface.

Stones. Rock fragments 10 to 24 inches (25 to 60 centimeters) in diameter if rounded or 15 to 24 inches (38 to 60 centimeters) in length if flat.

Stony. Refers to a soil containing stones in numbers that interfere with or prevent tillage.

Stream terrace. One of a series of platforms in a stream valley, flanking and more or less parallel to the stream channel, originally formed near the level of the stream;

represents the remnants of an abandoned flood plain, stream bed, or valley floor produced during a former state of fluvial erosion or deposition.

Stripcropping. Growing crops in a systematic arrangement of strips or bands that provide vegetative barriers to wind erosion and water erosion.

Structure, soil. The arrangement of primary soil particles into compound particles or aggregates. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular*. *Structureless* soils are either *single grained* (each grain by itself, as in dune sand) or *massive* (the particles adhering without any regular cleavage, as in many hardpans).

Stubble mulch. Stubble or other crop residue left on the soil or partly worked into the soil. It protects the soil from wind erosion and water erosion after harvest, during preparation of a seedbed for the next crop, and during the early growing period of the new crop.

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Tilling a soil below normal plow depth, ordinarily to shatter a hardpan or claypan.

Substratum. The part of the soil below the solum.

Subsurface layer. Any surface soil horizon (A, E, AB, or EB) below the surface layer.

Summer fallow. The tillage of uncropped land during the summer to control weeds and allow storage of moisture in the soil for the growth of a later crop. A practice common in semiarid regions, where annual precipitation is not enough to produce a crop every year. Summer fallow is frequently practiced before planting winter grain.

Summit. The topographically highest position of a hillslope. It has a nearly level (planar or only slightly convex) surface.

Surface layer. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, ranging in depth from 4 to 10 inches (10 to 25 centimeters). Frequently designated as the “plow layer,” or the “Ap horizon.”

Surface soil. The A, E, AB, and EB horizons, considered collectively. It includes all subdivisions of these horizons.

Taxadjuncts. Soils that cannot be classified in a series recognized in the classification system. Such soils are named for a series they strongly resemble and are designated as taxadjuncts to that series because they differ in ways too small to be of consequence in interpreting their use and behavior. Soils are recognized as taxadjuncts only when one or more of their characteristics are slightly outside the range defined for the family of the series for which the soils are named.

Terrace (conservation). An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that water soaks into the soil or flows slowly to a prepared outlet. A terrace in a field generally is built so that the field can be farmed. A terrace intended mainly for drainage has a deep channel that is maintained in permanent sod.

Terrace (geomorphology). A steplike surface, bordering a valley floor or shoreline, that represents the former position of a flood plain, lake, or seashore. The term is usually applied both to the relatively flat summit surface (tread) that was cut or built by stream or wave action and to the steeper descending slope (scarp or riser) that has graded to a lower base level of erosion.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy sand, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay,* and *clay*. The sand, loamy sand, and sandy loam classes may be further divided by specifying “coarse,” “fine,” or “very fine.”

Thin layer (in tables). Otherwise suitable soil material that is too thin for the specified use.

Tilth, soil. The physical condition of the soil as related to tillage, seedbed preparation, seedling emergence, and root penetration.

Toeslope. The gently inclined surface at the base of a hillslope. Toeslopes in profile are commonly gentle and linear and are constructional surfaces forming the lower part of a hillslope continuum that grades to valley or closed-depression floors.

Topsoil. The upper part of the soil, which is the most favorable material for plant growth. It is ordinarily rich in organic matter and is used to topdress roadbanks, lawns, and land affected by mining.

Trace elements. Chemical elements, for example, zinc, cobalt, manganese, copper, and iron, in soils in extremely small amounts. They are essential to plant growth.

Upland. An informal, general term for the higher ground of a region, in contrast with a low-lying adjacent area, such as a valley or plain, or for land at a higher elevation than the flood plain or low stream terrace; land above the footslope zone of the hillslope continuum.

Valley fill. The unconsolidated sediment deposited by any agent (water, wind, ice, or mass wasting) so as to fill or partly fill a valley.

Variegation. Refers to patterns of contrasting colors assumed to be inherited from the parent material rather than to be the result of poor drainage.

Water bars. Smooth, shallow ditches or depressional areas that are excavated at an angle across a sloping road. They are used to reduce the downward velocity of water and divert it off and away from the road surface. Water bars can easily be driven over if constructed properly.

Weathering. All physical disintegration, chemical decomposition, and biologically induced changes in rocks or other deposits at or near the earth’s surface by atmospheric or biologic agents or by circulating surface waters but involving essentially no transport of the altered material.

Well graded. Refers to soil material consisting of coarse grained particles that are well distributed over a wide range in size or diameter. Such soil normally can be easily increased in density and bearing properties by compaction. Contrasts with poorly graded soil.

Wilting point (or permanent wilting point). The moisture content of soil, on an ovendry basis, at which a plant (specifically a sunflower) wilts so much that it does not recover when placed in a humid, dark chamber.

Windthrow. The uprooting and tipping over of trees by the wind.

Tables

Table 1.—Temperature and Precipitation

(Recorded in the period 1971 2000 at Sylacauga, Alabama)

Month	Temperature (Degrees F.)						Precipitation (Inches)				
				2 yrs in 10 will have				2 yrs in 10 will have			
	Avg daily max	Avg daily min	Avg	Max temp. >than	Min temp. <than	Avg # of grow deg days*	Avg	Less than	More than	Avg # of days w/.1 or more	Avg total snow fall
January	55.7	31.9	43.8	75	7	56	5.77	3.62	7.77	8	0.3
February	60.3	34.1	47.2	78	12	74	5.37	3.27	7.28	7	0.1
March	68.2	40.9	54.5	86	20	200	6.03	3.25	8.51	7	0.4
April	75.0	45.7	60.4	89	28	322	4.56	2.14	7.08	6	0.1
May	82.5	55.1	68.8	93	37	584	3.66	2.27	4.98	6	0.0
June	88.0	62.5	75.3	97	45	758	4.36	2.09	6.43	7	0.0
July	91.0	66.2	78.6	100	55	880	5.10	2.34	7.84	8	0.0
August	90.6	65.1	77.9	100	54	861	3.74	2.34	5.04	6	0.0
September	85.5	59.1	72.3	96	39	669	4.23	1.82	6.53	5	0.0
October	76.7	47.2	62.0	89	28	377	3.12	1.16	4.94	4	0.0
November	66.5	38.9	52.7	84	19	160	4.89	3.02	6.31	6	0.0
December	57.5	33.3	45.4	77	10	74	5.13	3.14	6.62	7	0.0
Yearly :											
Average	74.8	48.3	61.6								
Extreme	104	4		101	4						
Total						5014	55.96	47.18	63.53	77	1.0

Average # of days per year with at least 1 inch of snow on the ground: 0

*A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (Threshold: 50.0 deg. F)

Table 2.—Freeze Dates in Spring and Fall

(Recorded in the period 1971-2000 at Sylacauga, Alabama)

Probability	Temperature 24F or lower	Temperature 28F or lower	Temperature 32F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	March 18	April 7	April 19
2 year in 10 later than--	March 11	April 1	April 15
5 year in 10 later than--	February 26	March 19	April 9
First freezing temperature in fall:			
1 yr in 10 earlier than--	November 3	October 21	October 6
2 yr in 10 earlier than--	November 10	October 28	October 13
5 yr in 10 earlier than--	November 23	November 9	October 26

Table 3.—Growing Season

(Recorded for the period 1971-2000 at Sylacauga, Alabama)

Probability	Daily Minimum Temperature # days > 24F	Daily Minimum Temperature # days > 28F	Daily Minimum Temperature # days > 32F
9 years in 10	241	208	179
8 years in 10	250	216	186
5 years in 10	268	233	199
2 years in 10	287	249	212
1 year in 10	296	257	219

Table 4.—Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
AcB	Alcovy sandy loam, 2 to 6 percent slopes	509	0.1
AlC2	Allen gravelly sandy loam, 2 to 10 percent slopes, moderately eroded	464	0.1
AtB	Altavista fine sandy loam, 2 to 6 percent slopes, rarely flooded	1,178	0.3
BdB2	Badin-Tatum-Tallapoosa complex, 2 to 6 percent slopes, moderately eroded	1,604	0.4
BfC	Badin-Tallapoosa-Fruithurst complex, 3 to 10 percent slopes	9,620	2.3
BmD2	Bethlehem-Madison Complex, 6 to 15 percent slopes, moderately eroded	22,123	5.2
CeB2	Cecil sandy loam, 2 to 6 percent slopes, moderately eroded	7,707	1.8
CeC2	Cecil sandy loam, 6 to 10 percent slopes, moderately eroded	11,578	2.7
ChA	Chewacla, Cartecay, and Toccoa soils, 0 to 1 percent slopes, frequently flooded	26,127	6.1
DaB	Davidson clay loam, 2 to 6 percent slopes	405	*
DAM	Dam	1	*
DdD3	Davidson clay loam, 6 to 15 percent slopes, severely eroded	2,987	0.7
DeB	Decatur silt loam, 2 to 6 percent slopes	1,479	0.3
EnB	Enon-Wynott complex, 2 to 6 percent slopes	3,603	0.8
GrD	Grover sandy loam, 6 to 15 percent slopes	22,926	5.4
HdB	Hard Labor loamy sand, 2 to 6 percent slopes	3,872	0.9
HdC	Hard Labor loamy sand, 6 to 10 percent slopes	2,641	0.6
LcB	Locust fine sandy loam, 2 to 6 percent slopes	1,749	0.4
LoF	Louisa-Mountain Park complex, 30 to 50 percent slopes	17,141	4.0
LrD	Louisburg-Rion-rock outcrop complex, 6 to 15 percent slopes, very bouldery	5,925	1.4
LrE	Louisburg-Rion-rock outcrop complex, 15 to 35 percent slopes, very bouldery	15,274	3.6
MaB2	Madison fine sandy loam, 2 to 6 percent slopes, moderately eroded	4,064	1.0
MaD2	Madison fine sandy loam, 6 to 15 percent slopes, moderately eroded	17,233	4.0
MdE2	Madison-Louisa complex, 15 to 30 percent slopes, moderately eroded	60,920	14.3
MxD2	Mecklenburg gravelly loam, 6 to 15 percent slopes	8,892	2.1
PaC2	Pacolet gravelly sandy loam, 3 to 10 percent slopes, moderately eroded	17,496	4.1
PrD2	Pacolet-Rion complex, 6 to 15 percent slopes, moderately eroded, stony	27,790	6.5
PrE2	Pacolet-Rion complex, 15 to 25 percent slopes, moderately eroded, stony	16,647	3.9
Pt	Pits, borrow	96	*
ShA	Shellbluff loam, 0 to 2 slopes, frequently flooded	1,517	0.4
SpB	Springhill sandy loam, 2 to 5 percent slopes	57	*
SwF	Sweetapple-Mountain Park complex, 15 to 40 percent slopes	5,860	1.4
TaD2	Tallapoosa-Badin-Fruithurst complex, 6 to 15 percent slopes, moderately eroded	35,695	8.4
TfE2	Tallapoosa-Fruithurst complex, 15 to 40 percent slopes, moderately eroded	35,510	8.3
ToA	Toccoa fine sandy loam, 0 to 2 percent slopes, occasionally flooded	2,033	0.5
TwD	Townley gravelly fine sandy loam, 6 to 15 percent slopes	1,122	0.3
TxE	Townley-Montevallo complex, 15 to 40 percent slopes	1,710	0.4
W	Water	10,482	2.5
WeC2	Wedowee gravelly sandy loam, 3 to 10 percent slopes, moderately eroded	4,941	1.2
WeD2	Wedowee gravelly sandy loam, 6 to 15 percent slopes, moderately eroded	6,755	1.6
WfE	Wedowee very gravelly sandy loam, 15 to 35 percent slopes	1,215	0.3
WhA	Wehadkee silt loam, 0 to 2 percent slopes, frequently flooded	2,264	0.5
WkB	Wickham sandy loam, 2 to 6 percent slopes, rarely flooded	1,294	0.3
WnE	Wynott-Wilkes complex, 15 to 45 percent slopes, very stony	1,504	0.4
WyD	Wynott-Winnsboro complex, 6 to 15 percent slopes, very stony	2,470	0.6
	Total	426,480	100.0

* Less than 0.1 percent.

Table 5a.—Land Capability Class and Nonirrigated Yields by Map Unit (Part 1)

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.)

Map symbol and soil name	Land capability	Corn	Cotton lint	Soybeans	Wheat
		Bu	Lbs	Bu	Bu
AcB:		75.00	800.00	30.00	45.00
Alcovy	2e				
AlC2:		90.00	---	36.00	54.00
Allen	3e				
AtB:		115.00	650.00	40.00	55.00
Altavista	2e				
BdB2:		85.00	---	25.00	40.00
Badin	3e				
Tatum	3e				
Tallapoosa	3e				
BfC:		45.00	350.00	---	---
Badin	3e				
Tallapoosa	4e				
Fruithurst	3e				
BmD2:		---	---	---	---
Bethlehem	4e				
Madison	4e				
CeB2:		95.00	750.00	35.00	45.00
Cecil	2e				
CeC2:		60.00	700.00	25.00	40.00
Cecil	3e				
CHA:		80.00	---	25.00	30.00
Chewacla	4w				
Cartecay	5w				
Toccoa	3w				
DaB:		95.00	750.00	35.00	45.00
Davidson	2e				
DAM:		---	---	---	---
Dam	---				
DdD3:		70.00	---	30.00	---
Davidson	4e				
DeB:		80.00	900.00	30.00	45.00
Decatur	2e				
EnB:		70.00	900.00	25.00	30.00
Enon	2e				
Wynott	3e				
GrD:		75.00	400.00	25.00	35.00
Grover	4e				
HdB:		90.00	650.00	35.00	45.00
Hard Labor	2e				
HdC:		80.00	600.00	30.00	40.00
Hard Labor	3e				

Table 5a.—Land Capability Class and Nonirrigated Yields by Map Unit (Part 1)—Continued

Map symbol and soil name	Land capability	Corn	Cotton lint	Soybeans	Wheat
		Bu	Lbs	Bu	Bu
LcB:		75.00	800.00	30.00	45.00
Locust	2e				
LoF:		---	---	---	---
Louisa	7e				
Mountain Park	7e				
LrD:		---	---	---	---
Louisburg	6s				
Rion	4e				
Rock Outcrop	---				
LrE:		---	---	---	---
Louisburg	7s				
Rion	7e				
Rock Outcrop	---				
MaB2:		80.00	700.00	---	---
Madison	2e				
MaD2:		60.00	500.00	---	---
Madison	4e				
MdE2:		---	---	---	---
Madison	7e				
Louisa	7e				
MxD2:		---	---	---	---
Mecklenburg	4e				
PaC2:		75.00	550.00	25.00	30.00
Pacolet	3e				
PrD2:		60.00	500.00	20.00	25.00
Pacolet	4e				
Rion	4e				
PrE2:		---	---	---	---
Pacolet	6e				
Rion	6e				
Pt:		---	---	---	---
Pits, borrow	8s				
ShA:		90.00	650.00	35.00	45.00
Shellbluff	2w				
SpB:		110.00	900.00	35.00	---
Springhill	2e				
SwF:		---	---	---	---
Sweetapple	7e				
Mountain Park	7e				
TaD2:		60.00	---	20.00	30.00
Tallapoosa	6e				
Badin	4e				
Fruithurst	4e				
TfE2:		---	---	---	---
Tallapoosa	7e				
Fruithurst	7e				

Table 5a.—Land Capability Class and Nonirrigated Yields by Map Unit (Part 1)—Continued

Map symbol and soil name	Land capability	Corn	Cotton lint	Soybeans	Wheat
		Bu	Lbs	Bu	Bu
ToA:		90.00	750.00	30.00	---
Toccoa	2w				
TwD:		---	450.00	---	---
Townley	4e				
TxE:		---	---	---	---
Townley	7e				
Montevallo	7e				
W:		---	---	---	---
Water	8w				
WeC2:		75.00	550.00	25.00	30.00
Wedowee	3e				
WeD2:		60.00	500.00	20.00	25.00
Wedowee	4e				
WfE:		---	---	---	---
Wedowee	7e				
WhA:		---	---	---	---
Wehadkee	6w				
WkB:		100.00	750.00	35.00	---
Wickham	2e				
WnE:		---	---	---	---
Wynott	7s				
Wilkes	7s				
WyD:		---	---	---	---
Wynott	6s				
Winnsboro	6s				

Table 5b.—Land Capability Class and Nonirrigated Yields by Map Unit (Part 2)

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.)

Map symbol and soil name	Land capability	Bahiagrass	Improved bermudagrass	Improved bermudagrass hay	Tall fescue
		AUM	AUM	Tons	AUM
AcB:		---	8.00	4.50	6.00
Alcovy------------------	2e				
AcB:		---	---	---	---
Alcovy------------------	2e				
AlC2:		9.50	10.50	6.00	---
Allen-------------------	3e				
AtB:		9.00	8.50	4.50	8.50
Altavista---------------	2e				
BdB2:		---	7.00	3.50	6.50
Badin-------------------	3e				
Tatum-------------------	3e				
Tallapoosa--------------	3e				
BfC:		---	3.50	---	4.00
Badin-------------------	3e				
Tallapoosa--------------	4e				
Fruithurst--------------	3e				
BmD2:		---	6.00	3.60	---
Bethlehem---------------	4e				
Madison-----------------	4e				
CeB2:		---	8.00	3.20	6.00
Cecil-------------------	2e				
CeC2:		---	7.50	3.00	5.50
Cecil-------------------	3e				
CHA:		---	8.50	4.00	8.00
Chewacla----------------	4w				
Cartecay----------------	5w				
Toccoa------------------	3w				
DaB:		---	8.00	3.20	6.00
Davidson----------------	2e				
DAM:		---	---	---	---
Dam---------------------	---				
DdD3:		---	8.30	---	6.50
Davidson----------------	4e				
DeB:		---	---	---	---
Decatur-----------------	2e				
EnB:		---	7.00	3.00	8.00
Enon--------------------	2e				
Wynott------------------	3e				
GrD:		7.50	8.50	3.00	8.50
Grover------------------	4e				

Table 5b.—Land Capability Class and Nonirrigated Yields by Map Unit (Part 2)—Continued

Map symbol and soil name	Land capability	Bahiagrass	Improved bermudagrass	Improved bermudagrass hay	Tall fescue
		AUM	AUM	Tons	AUM
HdB:		---	8.00	4.50	6.00
Hard Labor	2e				
HdC:		---	7.50	4.50	6.00
Hard Labor	3e				
LcB:		---	8.00	4.50	6.00
Locust	2e				
LoF:		---	---	---	---
Louisa	7e				
Mountain Park	7e				
LrD:		---	5.50	---	4.50
Louisburg	6s				
Rion	4e				
Rock Outcrop	---				
LrE:		---	5.50	---	4.50
Louisburg	7s				
Rion	7e				
Rock Outcrop	---				
MaB2:		---	7.50	4.50	8.00
Madison	2e				
MaD2:		---	6.00	3.60	---
Madison	4e				
MdE2:		---	---	---	---
Madison	7e				
Louisa	7e				
MxD2:		7.00	8.00	4.50	---
Mecklenburg	4e				
PaC2:		---	6.50	3.00	6.00
Pacolet	3e				
PrD2:		---	6.50	3.00	6.00
Pacolet	4e				
Rion	4e				
PrE2:		---	---	---	---
Pacolet	6e				
Rion	6e				
Pt:		---	---	---	---
Pits, borrow	8s				
ShA:		---	8.00	4.50	6.00
Shellbluff	2w				
SpB:		9.50	10.50	6.00	---
Springhill	2e				
SwF:		---	---	---	---
Sweetapple	7e				
Mountain Park	7e				

Table 5b.—Land Capability Class and Nonirrigated Yields by Map Unit (Part 2)—Continued

Map symbol and soil name	Land capability	Bahiagrass	Improved bermudagrass	Improved bermudagrass hay	Tall fescue
		AUM	AUM	Tons	AUM
TaD2:		---	2.80	1.50	3.00
Tallapoosa	6e				
Badin	4e				
Fruithurst	4e				
TfE2:		---	---	---	---
Tallapoosa	7e				
Fruithurst	7e				
ToA:		9.00	8.00	4.00	6.50
Toccoa	2w				
TwD:		---	---	---	---
Townley	4e				
TxE:		---	---	---	---
Townley	7e				
Montevallo	7e				
W:		---	---	---	---
Water	8w				
WeC2:		---	6.50	3.00	6.00
Wedowee	3e				
WeD2:		---	6.50	3.00	6.00
Wedowee	4e				
WfE:		---	---	---	---
Wedowee	7e				
WhA:		---	---	---	---
Wehadkee	6w				
WkB:		---	8.50	4.50	---
Wickham	2e				
WnE:		---	---	---	---
Wynott	7s				
Wilkes	7s				
WyD:		---	6.00	---	6.00
Wynott	6s				
Winnsboro	6s				

Table 6.—Prime Farmland and Other Important Farmlands

(Only the soils considered prime or important farmland are listed. Urban or built-up areas of the soils listed are not considered prime or important farmland. If a soil is prime or important farmland only under certain conditions, the conditions are specified in parentheses after the soil name.)

Map symbol	Map unit name	Farmland Classification
AcB	Alcovy sandy loam, 2 to 6 percent slopes	Prime farmland in all areas
AtB	Altavista fine sandy loam, 2 to 6 percent slopes, rarely flooded	Prime farmland in all areas
CeB2	Cecil sandy loam, 2 to 6 percent slopes, moderately eroded	Prime farmland in all areas
DaB	Davidson clay loam, 2 to 6 percent slopes	Prime farmland in all areas
DeB	Decatur silt loam, 2 to 6 percent slopes	Prime farmland in all areas
HdB	Hard Labor loamy sand, 2 to 6 percent slopes	Prime farmland in all areas
LcB	Locust fine sandy loam, 2 to 6 percent slopes	Prime farmland in all areas
MaB2	Madison fine sandy loam, 2 to 6 percent slopes, moderately eroded	Prime farmland in all areas
SpB	Springhill sandy loam, 2 to 5 percent slopes	Prime farmland in all areas
ToA	Toccoa fine sandy loam, 0 to 2 percent slopes, occasionally flooded	Prime farmland in all areas
WkB	Wickham sandy loam, 2 to 6 percent slopes, rarely flooded	Prime farmland in all areas
AlC2	Allen gravelly sandy loam, 2 to 10 percent slopes, moderately eroded	Farmland of statewide importance
CeC2	Cecil sandy loam, 6 to 10 percent slopes, moderately eroded	Farmland of statewide importance
HdC	Hard Labor loamy sand, 6 to 10 percent slopes	Farmland of statewide importance
MaD2	Madison fine sandy loam, 6 to 15 percent slopes, moderately eroded	Farmland of statewide importance
MxD2	Mecklenburg gravelly loam, 6 to 15 percent slopes	Farmland of statewide importance
PaC2	Pacolet gravelly sandy loam, 3 to 10 percent slopes, moderately eroded	Farmland of statewide importance
PrD2	Pacolet-Rion complex, 6 to 15 percent slopes, moderately eroded, stony	Farmland of statewide importance
ShA	Shellbluff loam, 0 to 2 slopes, frequently flooded	Farmland of statewide importance
TwD	Townley gravelly fine sandy loam, 6 to 15 percent slopes	Farmland of statewide importance
WeC2	Wedowee gravelly sandy loam, 3 to 10 percent slopes, moderately eroded	Farmland of statewide importance
WeD2	Wedowee gravelly sandy loam, 6 to 15 percent slopes, moderately eroded	Farmland of statewide importance

Table 7.—Forestland Productivity

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
AcB:				
Alcovy------------------	loblolly pine-------	80	114	loblolly pine, shortleaf pine, yellow-poplar
	shortleaf pine------	70	114	
	southern red oak----	70	57	
	yellow-poplar-------	90	86	
AlC2:				
Allen-------------------	shortleaf pine------	70	114	loblolly pine, shortleaf pine, yellow-poplar
	yellow-poplar-------	90	86	
AtB:				
Altavista---------------	loblolly pine-------	90	129	loblolly pine
	longleaf pine-------	85	114	
	white oak-----------	75	57	
	shortleaf pine------	85	---	
	sweetgum------------	100	---	
	red maple-----------	---	---	
	yellow-poplar-------	95	---	
	southern red oak----	---	---	
	water oak-----------	90	---	
	American beech------	---	---	
	hickory-------------	---	---	
BdB2:				
Badin-------------------	loblolly pine-------	80	110	loblolly pine, shortleaf pine
	shortleaf pine------	70	106	
	Virginia pine-------	---	---	
	yellow-poplar-------	---	---	
	white oak-----------	65	46	
	scarlet oak---------	65	47	
	chestnut oak--------	65	48	
Tatum-------------------	longleaf pine-------	60	---	Virginia pine, loblolly pine
	loblolly pine-------	80	110	
	shortleaf pine------	70	106	
	Virginia pine-------	70	---	
Tallapoosa--------------	Virginia pine-------	65	86	Virginia pine, loblolly pine
	loblolly pine-------	70	86	
	longleaf pine-------	55	43	
	shortleaf pine------	65	86	
BfC:				
Badin-------------------	loblolly pine-------	80	110	loblolly pine, shortleaf pine
	shortleaf pine------	70	106	
	Virginia pine-------	---	---	
	yellow-poplar-------	---	---	
	white oak-----------	65	46	
	scarlet oak---------	65	47	
	chestnut oak--------	65	48	
Tallapoosa--------------	Virginia pine-------	65	86	Virginia pine, loblolly pine
	loblolly pine-------	70	86	
	longleaf pine-------	55	43	
	shortleaf pine------	65	86	
Fruithurst--------------	loblolly pine-------	75	86	loblolly pine, shortleaf pine
	longleaf pine-------	65	57	
	shortleaf pine------	65	86	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
BmD2:				
Bethlehem	shortleaf pine	70	103	loblolly pine, shortleaf pine
	Virginia pine	75	117	
	scarlet oak	75	55	
	chestnut oak	65	47	
	white oak	---	---	
	black oak	---	---	
Madison	Virginia pine	70	114	loblolly pine, shortleaf pine
	loblolly pine	80	114	
	northern red oak	---	57	
	shortleaf pine	70	100	
	southern red oak	---	57	
	white oak	---	57	
	yellow-poplar	---	100	
CeB2:				
Cecil	loblolly pine	85	114	loblolly pine, shortleaf pine
	shortleaf pine	70	114	
	Virginia pine	70	114	
	white oak	80	57	
	northern red oak	80	57	
	southern red oak	80	57	
	post oak	70	57	
	scarlet oak	80	57	
	sweetgum	75	72	
	yellow-poplar	90	86	
CeC2:				
Cecil	loblolly pine	85	114	loblolly pine, shortleaf pine
	shortleaf pine	70	114	
	Virginia pine	70	114	
	white oak	80	57	
	northern red oak	80	57	
	southern red oak	80	57	
	post oak	70	57	
	scarlet oak	80	57	
	sweetgum	75	72	
	yellow-poplar	90	86	
CHA:				
Chewacla	blackgum	---	---	American sycamore, loblolly pine, sweetgum, yellow-poplar
	eastern cottonwood	115	---	
	green ash	90	---	
	loblolly pine	95	143	
	red maple	---	---	
	southern red oak	---	---	
	sweetgum	110	129	
	water oak	105	72	
	willow oak	105	---	
	yellow-poplar	105	100	
Cartecay	loblolly pine	95	143	American sycamore, eastern cottonwood, loblolly pine, sweetgum, water oak, yellow-poplar
	southern red oak	85	72	
	sweetgum	100	114	
	water oak	95	86	
	yellow-poplar	105	114	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Toccoa	loblolly pine	105	129	American sycamore, cherrybark oak, loblolly pine, yellow-poplar
	southern red oak	85	---	
	sweetgum	110	143	
	yellow-poplar	115	114	
DaB:				
Davidson	loblolly pine	85	129	loblolly pine, slash pine, yellow-poplar
	northern red oak	80	57	
	shortleaf pine	70	100	
	southern red oak	70	57	
	sweetgum	80	86	
	white oak	70	57	
	yellow-poplar	80	72	
DdD3:				
Davidson	loblolly pine	85	129	loblolly pine, slash pine, yellow-poplar
	northern red oak	80	57	
	shortleaf pine	70	100	
	southern red oak	70	57	
	sweetgum	80	86	
	white oak	70	57	
	yellow-poplar	80	72	
DeB:				
Decatur	Virginia pine	70	114	eastern white pine, loblolly pine, shortleaf pine, yellow-poplar
	eastern white pine	80	143	
	loblolly pine	80	114	
	shortleaf pine	65	100	
	yellow-poplar	90	86	
EnB:				
Enon	loblolly pine	65	86	eastern redcedar, loblolly pine
	post oak	45	29	
	shortleaf pine	60	86	
	white oak	45	29	
Wynott	Virginia pine	60	100	loblolly pine, shortleaf pine
	loblolly pine	70	100	
	post oak	55	43	
	red maple	70	43	
	shortleaf pine	60	100	
	southern red oak	85	72	
	sweetgum	80	72	
	white oak	70	57	
	yellow-poplar	90	86	
GrD:				
Grover	black oak	---	---	Virginia pine, loblolly pine, yellow-poplar
	chestnut oak	---	---	
	hickory	---	---	
	scarlet oak	---	---	
	southern red oak	---	---	
	sweetgum	---	---	
	white oak	---	---	
	yellow-poplar	---	---	
	loblolly pine	80	114	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
HdB:				
Hard Labor	hickory	---	---	loblolly pine
	loblolly pine	90	129	
	southern red oak	---	---	
	sweetgum	---	---	
	white oak	65	43	
	yellow-poplar	90	86	
HdC:				
Hard Labor	hickory	---	---	loblolly pine
	loblolly pine	90	129	
	southern red oak	---	---	
	sweetgum	---	---	
	white oak	65	43	
	yellow-poplar	90	86	
LoB:				
Locust	loblolly pine	80	114	loblolly pine, shortleaf pine, yellow-poplar
	shortleaf pine	70	114	
	southern red oak	70	57	
	yellow-poplar	90	86	
LoF:				
Louisa	loblolly pine	70	100	eastern redcedar, loblolly pine
	longleaf pine	65	72	
	shortleaf pine	65	100	
	southern red oak	70	57	
	yellow-poplar	85	86	
Mountain Park	black oak	---	---	Virginia pine, loblolly pine, yellow-poplar
	chestnut oak	---	---	
	hickory	---	---	
	scarlet oak	---	---	
	southern red oak	70	---	
	sweetgum	---	---	
	white oak	---	---	
	yellow-poplar	85	---	
	loblolly pine	70	114	
LrD:				
Louisburg	Virginia pine	70	114	Virginia pine, loblolly pine, slash pine, yellow-poplar
	loblolly pine	80	100	
	shortleaf pine	70	114	
	southern red oak	70	57	
	white oak	70	57	
	yellow-poplar	85	86	
Rion	hickory	---	---	loblolly pine, shortleaf pine, yellow-poplar
	loblolly pine	80	114	
	northern red oak	---	---	
	post oak	65	43	
	shortleaf pine	70	114	
	southern red oak	80	57	
	sweetgum	80	86	
	white oak	70	57	
	yellow-poplar	90	86	
Rock Outcrop	---	---	---	---

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
LrE:				
Louisburg	Virginia pine	70	114	Virginia pine, loblolly pine, slash pine, yellow-poplar
	loblolly pine	80	100	
	shortleaf pine	70	114	
	southern red oak	70	57	
	white oak	70	57	
	yellow-poplar	85	86	
Rion	---	---	---	---
Rock Outcrop	---	---	---	---
MaB2:				
Madison	Virginia pine	70	114	loblolly pine, shortleaf pine
	loblolly pine	80	114	
	northern red oak	---	57	
	shortleaf pine	70	100	
	southern red oak	---	57	
	white oak	---	57	
	yellow-poplar	---	100	
MaD2:				
Madison	Virginia pine	70	114	loblolly pine, shortleaf pine
	loblolly pine	80	114	
	northern red oak	---	57	
	shortleaf pine	70	100	
	southern red oak	---	57	
	white oak	---	57	
	yellow-poplar	---	100	
MdE2:				
Madison	Virginia pine	70	114	loblolly pine, shortleaf pine
	loblolly pine	80	114	
	northern red oak	---	57	
	shortleaf pine	70	100	
	southern red oak	---	57	
	white oak	---	57	
	yellow-poplar	---	100	
Louisa	loblolly pine	70	100	eastern redcedar, loblolly pine
	longleaf pine	65	72	
	shortleaf pine	65	100	
	southern red oak	70	57	
	yellow-poplar	85	86	
MxD2:				
Mecklenburg	Virginia pine	65	---	Virginia pine, loblolly pine
	hickory	---	---	
	loblolly pine	85	86	
	northern red oak	---	---	
	shortleaf pine	65	86	
	sweetgum	---	---	
	white oak	---	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
PaC2:				
Pacolet	Virginia pine	---	---	eastern white pine, loblolly pine, shortleaf pine, yellow-poplar
	hickory	---	---	
	loblolly pine	80	114	
	northern red oak	---	---	
	shortleaf pine	70	114	
	white oak	---	---	
	yellow-poplar	90	86	
PrD2:				
Pacolet	loblolly pine	80	114	loblolly pine, shortleaf pine, yellow-poplar, eastern white pine
	shortleaf pine	70	114	
	yellow-poplar	90	86	
	Virginia pine	75	---	
	northern red oak	80	---	
	hickory	---	---	
	white oak	70	---	
Rion	loblolly pine	80	114	loblolly pine, shortleaf pine
	southern red oak	80	57	
	white oak	70	57	
	yellow-poplar	90	86	
PrE2:				
Pacolet	loblolly pine	80	114	loblolly pine, shortleaf pine, yellow-poplar, eastern white pine
	shortleaf pine	70	114	
	yellow-poplar	90	86	
	Virginia pine	75	---	
	northern red oak	80	---	
	hickory	---	---	
	white oak	70	---	
Rion	loblolly pine	80	114	loblolly pine, shortleaf pine
	southern red oak	80	57	
	white oak	70	57	
	yellow-poplar	90	86	
ShA:				
Shellbluff	loblolly pine	110	177	loblolly pine
	sweetgum	95	125	
	yellow-poplar	100	104	
	cherrybark oak	---	---	
	eastern cottonwood	---	---	
	scarlet oak	---	---	
	black walnut	---	---	
SpB:				
Springhill	loblolly pine	85	129	loblolly pine, longleaf pine, slash pine
	longleaf pine	75	86	
	shortleaf pine	75	129	
	southern red oak	---	57	
	sweetgum	---	100	
	water oak	---	86	
SwF:				
Sweetapple	loblolly pine	70	86	eastern redcedar, loblolly pine
	shortleaf pine	70	100	
	southern red oak	60	43	
	white oak	60	43	
	yellow-poplar	---	---	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
Mountain Park	black oak	---	---	Virginia pine, loblolly pine, yellow-poplar
	chestnut oak	---	---	
	hickory	---	---	
	scarlet oak	---	---	
	southern red oak	70	---	
	sweetgum	---	---	
	white oak	---	---	
	yellow-poplar	85	---	
	loblolly pine	70	114	
TaD2:				
Tallapoosa	Virginia pine	65	86	Virginia pine, loblolly pine
	loblolly pine	70	86	
	longleaf pine	55	43	
	shortleaf pine	65	86	
Badin	loblolly pine	80	110	loblolly pine, shortleaf pine
	shortleaf pine	70	106	
	Virginia pine	---	---	
	yellow-poplar	---	---	
	white oak	65	46	
	scarlet oak	65	47	
	chestnut oak	65	48	
Fruithurst	loblolly pine	75	86	loblolly pine, shortleaf pine
	longleaf pine	65	57	
	shortleaf pine	65	86	
TfE2:				
Tallapoosa	Virginia pine	65	86	Virginia pine, loblolly pine
	loblolly pine	70	86	
	longleaf pine	55	43	
	shortleaf pine	65	86	
Fruithurst	loblolly pine	70	86	loblolly pine, shortleaf pine
	longleaf pine	60	57	
	shortleaf pine	60	86	
ToA:				
Toccoa	loblolly pine	105	129	American sycamore, cherrybark oak, loblolly pine, yellow-poplar
	southern red oak	85	---	
	sweetgum	110	143	
	yellow-poplar	115	114	
TwD:				
Townley	Virginia pine	70	114	Virginia pine, loblolly pine
	loblolly pine	70	86	
	shortleaf pine	60	86	
TxE:				
Townley	Virginia pine	70	114	Virginia pine, loblolly pine
	loblolly pine	70	86	
	shortleaf pine	60	86	
Montevallo	Virginia pine	60	86	Virginia pine, loblolly pine
	loblolly pine	60	72	
	shortleaf pine	60	86	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
WeC2:				
Wedowee	Virginia pine	70	114	Virginia pine, loblolly pine, shortleaf pine, yellow-poplar
	loblolly pine	85	114	
	northern red oak	75	57	
	shortleaf pine	70	114	
	southern red oak	---	57	
	white oak	65	43	
WeD2:				
Wedowee	Virginia pine	70	114	Virginia pine, loblolly pine, shortleaf pine, yellow-poplar
	loblolly pine	85	114	
	northern red oak	75	57	
	shortleaf pine	70	114	
	southern red oak	---	57	
	white oak	65	43	
WfE:				
Wedowee	Virginia pine	70	114	Virginia pine, loblolly pine, shortleaf pine, yellow-poplar
	loblolly pine	85	114	
	northern red oak	75	57	
	shortleaf pine	70	114	
	southern red oak	---	57	
	white oak	65	43	
WhA:				
Wehadkee	American sycamore	---	---	green ash, loblolly pine, sweetgum, yellow-poplar
	green ash	90	---	
	loblolly pine	95	143	
	river birch	---	---	
	sweetgum	95	114	
	water oak	85	86	
	white ash	---	---	
	willow oak	85	114	
	yellow-poplar	90	114	
WkB:				
Wickham	hickory	---	---	loblolly pine
	loblolly pine	90	129	
	northern red oak	---	---	
	red maple	---	---	
	shortleaf pine	75	---	
	southern red oak	80	57	
	sweetgum	90	---	
	water oak	80	---	
	white oak	85	72	
	yellow-poplar	90	86	
WnE:				
Wynott	Virginia pine	60	100	loblolly pine, shortleaf pine
	loblolly pine	70	100	
	post oak	55	43	
	red maple	70	43	
	shortleaf pine	60	100	
	southern red oak	85	72	
	sweetgum	80	72	
	white oak	70	57	
	yellow-poplar	90	86	

Table 7.—Forestland Productivity—Continued

Map symbol and soil name	Potential productivity: Common trees	Site index	Volume of wood fiber	Trees to manage
			cu ft/ac	
WyD:				
Wynott	Virginia pine	60	100	loblolly pine, shortleaf pine
	loblolly pine	70	100	
	post oak	55	43	
	red maple	70	43	
	shortleaf pine	60	100	
	southern red oak	85	72	
	sweetgum	80	72	
	white oak	70	57	
	yellow-poplar	90	86	
Winnsboro	Virginia pine	65	100	eastern red cedar, loblolly pine
	loblolly pine	75	100	
	post oak	55	43	
	red maple	70	43	
	shortleaf pine	65	100	
	southern red oak	85	72	
	sweetgum	80	72	
	white oak	70	57	
	yellow-poplar	90	86	

Table 8a.—Forestland Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Soil rutting hazard		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AcB:								
Alcovy	Moderate		Moderate		Moderate		Well suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.50		
AlC2:								
Allen	Slight		Moderate		Moderate		Moderately suited	
			Low strength	0.50	Slope/erodibility	0.50	Slope	0.50
AtB:								
Altavista	Slight		Moderate		Moderate		Well suited	
			Low strength	0.50	Slope/erodibility	0.50		
BdB2:								
Badin	Moderate		Severe		Moderate		Moderately suited	
	Low strength	0.50	Low strength	1.00	Slope/erodibility	0.50	Low strength	0.50
Tatum	Slight		Severe		Slight		Moderately suited	
			Low strength	1.00			Low strength	0.50
Tallapoosa	Slight		Severe		Moderate		Moderately suited	
			Low strength	1.00	Slope/erodibility	0.50	Low strength	0.50
BfC:								
Badin	Moderate		Severe		Moderate		Moderately suited	
	Low strength	0.50	Low strength	1.00	Slope/erodibility	0.50	Low strength	0.50
							Slope	0.50
Tallapoosa	Slight		Severe		Moderate		Moderately suited	
			Low strength	1.00	Slope/erodibility	0.50	Low strength	0.50
							Slope	0.50
Fruithurst	Slight		Severe		Moderate		Moderately suited	
			Low strength	1.00	Slope/erodibility	0.50	Low strength	0.50
							Slope	0.50
BmD2:								
Bethlehem	Moderate		Moderate		Moderate		Moderately suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.50	Slope	0.50

Table 8a.—Forestland Management (Part 1)—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Soil rutting hazard		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Madison	Moderate		Moderate		Severe		Moderately suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	0.50
CeB2:								
Cecil	Moderate		Moderate		Moderate		Well suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.50		
CeC2:								
Cecil	Moderate		Moderate		Moderate		Moderately suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.50	Slope	0.50
ChA:								
Chewacla	Severe		Severe		Slight		Poorly suited	
	Flooding	1.00	Low strength	1.00			Flooding	1.00
	Low strength	0.50					Wetness	0.50
							Low strength	0.50
Cartecay	Severe		Severe		Slight		Poorly suited	
	Flooding	1.00	Low strength	1.00			Flooding	1.00
							Wetness	0.50
							Low strength	0.50
Toccoa	Severe		Moderate		Slight		Poorly suited	
	Flooding	1.00	Low strength	0.50			Flooding	1.00
DaB:								
Davidson	Moderate		Severe		Moderate		Moderately suited	
	Low strength	0.50	Low strength	1.00	Slope/erodibility	0.50	Low strength	0.50
DAM:								
Dam	Not rated		Not rated		Not rated		Not rated	
DdD3:								
Davidson	Moderate		Severe		Severe		Moderately suited	
	Low strength	0.50	Low strength	1.00	Slope/erodibility	0.95	Slope	0.50
							Low strength	0.50

Table 8a.—Forestland Management (Part 1)—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings: Rating class and limiting features	Value	Soil rutting hazard: Rating class and limiting features	Value	Hazard of erosion on roads and trails: Rating class and limiting features	Value	Suitability for roads (natural surface): Rating class and limiting features	Value
DeB:								
Decatur	Moderate		Severe		Moderate		Moderately suited	
	Low strength	0.50	Low strength	1.00	Slope/erodibility	0.50	Low strength	0.50
EnB:								
Enon	Slight		Moderate		Slight		Well suited	
			Low strength	0.50				
Wynott	Moderate		Moderate		Moderate		Well suited	
	Stickiness/slope	0.50	Low strength	0.50	Slope/erodibility	0.50		
GrD:								
Grover	Slight		Moderate		Moderate		Moderately suited	
			Low strength	0.50	Slope/erodibility	0.50	Slope	0.50
HdB:								
Hard Labor	Slight		Moderate		Moderate		Well suited	
			Low strength	0.50	Slope/erodibility	0.50		
HdC:								
Hard Labor	Slight		Moderate		Moderate		Moderately suited	
			Low strength	0.50	Slope/erodibility	0.50	Slope	0.50
LcB:								
Locust	Moderate		Severe		Moderate		Moderately suited	
	Low strength	0.50	Low strength	1.00	Slope/erodibility	0.50	Low strength	0.50
							Wetness	0.50
LoF:								
Louisa	Severe		Moderate		Severe		Poorly suited	
	Slope	1.00	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
	Low strength	0.50						
Mountain Park	Severe		Moderate		Severe		Poorly suited	
	Slope	1.00	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
	Low strength	0.50						
LrD:								
Louisburg	Moderate		Moderate		Moderate		Poorly suited	
	Stoniness	0.50	Low strength	0.50	Slope/erodibility	0.50	Rock fragments	1.00
							Slope	0.50

Table 8a.—Forestland Management (Part 1)—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Soil rutting hazard		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Rion	Moderate		Moderate		Moderate		Moderately suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.50	Slope	0.50
Rock Outcrop	Not rated		Not rated		Not rated		Not rated	
LrE:								
Louisburg	Moderate		Moderate		Severe		Poorly suited	
	Slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Rock fragments	1.00
	Stoniness	0.50					Slope	1.00
Rion	Moderate		Moderate		Severe		Poorly suited	
	Slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
Rock Outcrop	Not rated		Not rated		Not rated		Not rated	
MaB2:								
Madison	Moderate		Moderate		Moderate		Well suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.50		
Rion	Moderate		Moderate		Moderate		Well suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.50		
MaD2:								
Madison	Moderate		Moderate		Severe		Poorly suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
MdE2:								
Madison	Moderate		Moderate		Severe		Poorly suited	
	Slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
Louisa	Moderate		Moderate		Severe		Poorly suited	
	Slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
MxD2:								
Mecklenburg	Moderate		Moderate		Severe		Poorly suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00

Table 8a.—Forestland Management (Part 1)—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Soil rutting hazard		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PaC2:								
Pacolet	Slight		Moderate		Moderate		Moderately suited	
			Low strength	0.50	Slope/erodibility	0.50	Slope	0.50
PrD2:								
Pacolet	Slight		Moderate		Moderate		Poorly suited	
			Low strength	0.50	Slope/erodibility	0.50	Slope	1.00
Rion	Moderate		Moderate		Moderate		Moderately suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.50	Slope	0.50
PrE2:								
Pacolet	Moderate		Moderate		Severe		Poorly suited	
	Slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
Rion	Moderate		Moderate		Severe		Poorly suited	
	Slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
ShA:								
Shellbluff	Moderate		Severe		Slight		Moderately suited	
	Flooding	0.50	Low strength	1.00			Flooding	0.50
	Low strength	0.50					Low strength	0.50
SpB:								
Springhill	Slight		Moderate		Slight		Well suited	
			Low strength	0.50				
SwF:								
Sweetapple	Moderate		Moderate		Severe		Poorly suited	
	Slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
Mountain Park	Moderate		Moderate		Severe		Poorly suited	
	Slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
TaD2:								
Tallapoosa	Slight		Severe		Severe		Moderately suited	
			Low strength	1.00	Slope/erodibility	0.95	Slope	0.50
							Low strength	0.50
Badin	Moderate		Severe		Severe		Moderately suited	
	Low strength	0.50	Low strength	1.00	Slope/erodibility	0.95	Slope	0.50
							Low strength	0.50

Table 8a.—Forestland Management (Part 1)—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Soil rutting hazard		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Fruithurst----------	Slight		Severe		Severe		Moderately suited	
			Low strength	1.00	Slope/erodibility	0.95	Slope	0.50
							Low strength	0.50
TfE2:								
Tallapoosa----------	Moderate		Severe		Severe		Poorly suited	
	Slope	0.50	Low strength	1.00	Slope/erodibility	0.95	Slope	1.00
							Low strength	0.50
Fruithurst----------	Moderate		Severe		Severe		Poorly suited	
	Slope	0.50	Low strength	1.00	Slope/erodibility	0.95	Slope	1.00
							Low strength	0.50
ToA:								
Toccoa--------------	Severe		Moderate		Slight		Poorly suited	
	Flooding	1.00	Low strength	0.50			Flooding	1.00
TwD:								
Townley-------------	Slight		Severe		Severe		Moderately suited	
			Low strength	1.00	Slope/erodibility	0.95	Slope	0.50
							Low strength	0.50
TxE:								
Townley-------------	Moderate		Severe		Severe		Poorly suited	
	Slope	0.50	Low strength	1.00	Slope/erodibility	0.95	Slope	1.00
							Low strength	0.50
Montevallo----------	Moderate		Moderate		Severe		Poorly suited	
	Slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
WeC2:								
Wedowee-------------	Moderate		Moderate		Moderate		Moderately suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.50	Slope	0.50
WeD2:								
Wedowee-------------	Moderate		Moderate		Severe		Poorly suited	
	Low strength	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
WfE:								
Wedowee-------------	Moderate		Moderate		Severe		Poorly suited	
	Slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00

Table 8a.—Forestland Management (Part 1)—Continued

Map symbol and soil name	Limitations affecting construction of haul roads and log landings		Soil rutting hazard		Hazard of erosion on roads and trails		Suitability for roads (natural surface)	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WhA:								
Wehadkee------------	Severe		Severe		Slight		Poorly suited	
	Flooding	1.00	Low strength	1.00			Flooding	1.00
	Low strength	0.50					Wetness	1.00
							Low strength	0.50
WkB:								
Wickham-------------	Moderate		Severe		Moderate		Moderately suited	
	Low strength	0.50	Low strength	1.00	Slope/erodibility	0.50	Low strength	0.50
WnE:								
Wynott--------------	Moderate		Moderate		Severe		Poorly suited	
	Slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
	Stickiness/slope	0.50						
Wilkes--------------	Moderate		Moderate		Severe		Poorly suited	
	Slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	1.00
WyD:								
Wynott--------------	Moderate		Moderate		Severe		Moderately suited	
	Stickiness/slope	0.50	Low strength	0.50	Slope/erodibility	0.95	Slope	0.50
Winnsboro-----------	Slight		Moderate		Moderate		Moderately suited	
			Low strength	0.50	Slope/erodibility	0.50	Slope	0.50
							Sandiness	0.50

Table 8b.—Forestland Management (Part 2)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Suitability for mechanical planting		Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)		Potential for seedling mortality	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AcB:								
Alcovy	Well suited		Well suited		Well suited		Low	
AlC2:								
Allen	Moderately suited		Well suited		Well suited		Low	
	Slope	0.50						
	Rock fragments	0.50						
AtB:								
Altavista	Well suited		Well suited		Well suited		Low	
BdB2:								
Badin	Moderately suited		Well suited		Well suited		Low	
	Stickiness; high plasticity index	0.50						
Tatum	Poorly suited		Poorly suited		Well suited		Low	
	Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.50				
	Rock fragments	0.50						
Tallapoosa	Moderately suited		Well suited		Well suited		Low	
	Rock fragments	0.50						
BfC:								
Badin	Moderately suited		Well suited		Well suited		Low	
	Stickiness; high plasticity index	0.50						
	Slope	0.50						
Tallapoosa	Moderately suited		Well suited		Well suited		Low	
	Rock fragments	0.50						
	Slope	0.50						
Fruithurst	Moderately suited		Well suited		Well suited		Low	
	Rock fragments	0.50						
	Slope	0.50						

Table 8b.—Forestland Management (Part 2)—Continued

Map symbol and soil name	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
BmD2:								
Bethlehem	Moderately suited		Well suited		Well suited		Low	
	Slope	0.50						
	Rock fragments	0.50						
Madison	Moderately suited		Well suited		Well suited		Low	
	Stickiness; high plasticity index	0.50						
	Slope	0.50						
	Rock fragments	0.50						
CeB2:								
Cecil	Moderately suited		Well suited		Well suited		Low	
	Stickiness; high plasticity index	0.50						
CeC2:								
Cecil	Moderately suited		Well suited		Well suited		Low	
	Stickiness; high plasticity index	0.50						
	Slope	0.50						
ChA:								
Chewacla	Well suited		Well suited		Well suited		High	
							Wetness	1.00
Cartecay	Well suited		Well suited		Well suited		High	
							Wetness	1.00
Toccoa	Well suited		Well suited		Well suited		Low	
DaB:								
Davidson	Well suited		Well suited		Well suited		Low	
DAM:								
Dam	Not rated		Not rated		Not rated		Not rated	
DdD3:								
Davidson	Moderately suited		Well suited		Well suited		Low	
	Slope	0.50						

Table 8b.—Forestland Management (Part 2)—Continued

Map symbol and soil name	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
DeB:								
Decatur	Poorly suited		Poorly suited		Well suited		Low	
	Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.50				
EnB:								
Enon	Poorly suited		Poorly suited		Well suited		Low	
	Stickiness; high plasticity index	0.75	Rock fragments	0.50				
	Rock fragments	0.75	Stickiness; high plasticity index	0.50				
Wynott	Poorly suited		Poorly suited		Well suited		Low	
	Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.50				
	Rock fragments	0.50						
GrD:								
Grover	Moderately suited		Well suited		Well suited		Low	
	Slope	0.50						
HdB:								
Hard Labor	Well suited		Well suited		Well suited		Low	
HdC:								
Hard Labor	Moderately suited		Well suited		Well suited		Low	
	Slope	0.50						
LcB:								
Locust	Moderately suited		Well suited		Well suited		Low	
	Rock fragments	0.50						
LoF:								
Louisa	Unsuited		Poorly suited		Poorly suited		Moderate	
	Slope	1.00	Slope	0.50	Slope	0.50	Available water	0.50
Mountain Park	Unsuited		Poorly suited		Poorly suited		Moderate	
	Slope	1.00	Slope	0.50	Slope	0.50	Available water	0.50
	Rock fragments	0.50						
LrD:								
Louisburg	Poorly suited		Unsuited		Poorly suited		Low	
	Rock fragments	0.75	Rock fragments	1.00	Rock fragments	0.50		
	Slope	0.50						

Table 8b.—Forestland Management (Part 2)—Continued

Map symbol and soil name	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
Rion----------------	Moderately suited		Well suited		Well suited		Low	
	Slope	0.50						
	Rock fragments	0.50						
Rock Outcrop--------	Not rated		Not rated		Not rated		Not rated	
LrE:								
Louisburg-----------	Poorly suited		Unsuited		Poorly suited		Low	
	Slope	0.75	Rock fragments	1.00	Slope	0.50		
	Rock fragments	0.75	Slope	0.50	Rock fragments	0.50		
Rion----------------	Poorly suited		Poorly suited		Poorly suited		Low	
	Slope	0.75	Slope	0.50	Slope	0.50		
	Rock fragments	0.50						
Rock Outcrop--------	Not rated		Not rated		Not rated		Not rated	
MaB2:								
Madison-------------	Moderately suited		Well suited		Well suited		Low	
	Stickiness; high plasticity index	0.50						
Rion----------------	Moderately suited		Well suited		Well suited		Low	
	Rock fragments	0.50						
	Slope	0.50						
MaD2:								
Madison-------------	Moderately suited		Well suited		Well suited		Low	
	Stickiness; high plasticity index	0.50						
	Slope	0.50						
	Rock fragments	0.50						
MdE2:								
Madison-------------	Poorly suited		Poorly suited		Poorly suited		Moderate	
	Slope	0.75	Slope	0.50	Slope	0.50	Available water	0.50
	Stickiness; high plasticity index	0.50						
	Rock fragments	0.50						

Table 8b.—Forestland Management (Part 2)—Continued

Map symbol and soil name	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
Louisa	Poorly suited		Poorly suited		Poorly suited		Moderate	
	Slope	0.75	Slope	0.50	Slope	0.50	Available water	0.50
MxD2:								
Mecklenburg	Poorly suited		Poorly suited		Well suited		Low	
	Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.50				
	Slope	0.50						
	Rock fragments	0.50						
PaC2:								
Pacolet	Moderately suited		Well suited		Well suited		Low	
	Rock fragments	0.50						
	Slope	0.50						
	Stickiness; high plasticity index	0.50						
PrD2:								
Pacolet	Moderately suited		Well suited		Well suited		Low	
	Slope	0.50						
	Rock fragments	0.50						
	Stickiness; high plasticity index	0.50						
Rion	Moderately suited		Well suited		Well suited		Low	
	Slope	0.50						
	Rock fragments	0.50						
PrE2:								
Pacolet	Poorly suited		Poorly suited		Poorly suited		Moderate	
	Slope	0.75	Slope	0.50	Slope	0.50	Available water	0.50
	Rock fragments	0.50						
	Stickiness; high plasticity index	0.50						
Rion	Poorly suited		Poorly suited		Poorly suited		Low	
	Slope	0.75	Slope	0.50	Slope	0.50		
	Rock fragments	0.50						
ShA:								
Shellbluff	Well suited		Well suited		Well suited		Low	

Table 8b.—Forestland Management (Part 2)—Continued

Map symbol and soil name	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
SpB:								
Springhill	Well suited		Well suited		Well suited		Low	
SwF:								
Sweetapple	Unsuited		Poorly suited		Poorly suited		Moderate	
	Slope	1.00	Slope	0.50	Slope	0.50	Available water	0.50
	Rock fragments	0.50						
Mountain Park	Unsuited		Poorly suited		Poorly suited		Moderate	
	Slope	1.00	Slope	0.50	Slope	0.50	Available water	0.50
	Rock fragments	0.50						
TaD2:								
Tallapoosa	Moderately suited		Well suited		Well suited		Low	
	Slope	0.50						
	Rock fragments	0.50						
Badin	Moderately suited		Well suited		Well suited		Low	
	Stickiness; high plasticity index	0.50						
	Slope	0.50						
Fruithurst	Moderately suited		Well suited		Well suited		Low	
	Slope	0.50						
	Rock fragments	0.50						
TfE2:								
Tallapoosa	Poorly suited		Poorly suited		Poorly suited		Moderate	
	Slope	0.75	Slope	0.50	Slope	0.50	Available water	0.50
	Rock fragments	0.50						
Fruithurst	Poorly suited		Poorly suited		Poorly suited		Moderate	
	Slope	0.75	Slope	0.50	Slope	0.50	Available water	0.50
	Rock fragments	0.50						
ToA:								
Toccoa	Well suited		Well suited		Well suited		Low	
TwD:								
Townley	Moderately suited		Well suited		Well suited		Low	
	Stickiness; high plasticity index	0.50						
	Slope	0.50						
	Rock fragments	0.50						

Table 8b.—Forestland Management (Part 2)—Continued

Map symbol and soil name	Suitability for mechanical planting: Rating class and limiting features	Value	Suitability for mechanical site preparation (surface): Rating class and limiting features	Value	Suitability for mechanical site preparation (deep): Rating class and limiting features	Value	Potential for seedling mortality: Rating class and limiting features	Value
TxE:								
Townley	Poorly suited		Poorly suited		Poorly suited		Low	
	Slope	0.75	Slope	0.50	Slope	0.50		
	Stickiness; high plasticity index	0.50						
	Rock fragments	0.50						
Montevallo	Unsuited		Poorly suited		Poorly suited		Low	
	Rock fragments	1.00	Slope	0.50	Slope	0.50		
	Slope	0.75	Rock fragments	0.50				
WeC2:								
Wedowee	Moderately suited		Well suited		Well suited		Low	
	Rock fragments	0.50						
	Slope	0.50						
WeD2:								
Wedowee	Moderately suited		Well suited		Well suited		Low	
	Slope	0.50						
	Rock fragments	0.50						
WfE:								
Wedowee	Poorly suited		Poorly suited		Poorly suited		Moderate	
	Slope	0.75	Slope	0.50	Slope	0.50	Available water	0.50
	Rock fragments	0.50						
WhA:								
Wehadkee	Well suited		Well suited		Well suited		High	
							Wetness	1.00
WkB:								
Wickham	Well suited		Well suited		Well suited		Low	
WnE:								
Wynott	Poorly suited		Poorly suited		Poorly suited		Moderate	
	Slope	0.75	Slope	0.50	Slope	0.50	Available water	0.50
	Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.50				
	Rock fragments	0.50						

Table 8b.—Forestland Management (Part 2)—Continued

Map symbol and soil name	Suitability for mechanical planting		Suitability for mechanical site preparation (surface)		Suitability for mechanical site preparation (deep)		Potential for seedling mortality	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Wilkes	Poorly suited		Poorly suited		Poorly suited		Moderate	
	Slope	0.75	Slope	0.50	Slope	0.50	Available water	0.50
	Rock fragments	0.50						
	Stickiness; high plasticity index	0.50						
WyD:								
Wynott	Poorly suited		Poorly suited		Well suited		Low	
	Stickiness; high plasticity index	0.75	Stickiness; high plasticity index	0.50				
	Rock fragments	0.50						
	Slope	0.50						
Winnsboro	Poorly suited		Poorly suited		Well suited		Low	
	Stickiness; high plasticity index	0.75	Rock fragments	0.50				
	Rock fragments	0.75	Stickiness; high plasticity index	0.50				
	Slope	0.50						

Table 9a.—Recreation (Part 1)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AcB:						
Alcovy	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.39	Depth to saturated zone	0.19	Gravel content	1.00
	Gravel content	0.01	Gravel content	0.01	Slope	0.50
					Depth to saturated zone	0.39
AlC2:						
Allen	Somewhat limited		Somewhat limited		Very limited	
	Gravel content	0.12	Gravel content	0.12	Gravel content	1.00
					Slope	1.00
AtB:						
Altavista	Very limited		Somewhat limited		Somewhat limited	
	Flooding	1.00	Depth to saturated zone	0.19	Depth to saturated zone	0.39
	Depth to saturated zone	0.39			Slope	0.12
BdB2:						
Badin	Somewhat limited		Somewhat limited		Somewhat limited	
	Slow water movement	0.94	Slow water movement	0.94	Slow water movement	0.94
					Depth to bedrock	0.65
					Slope	0.50
					Gravel content	0.22
Tatum	Somewhat limited		Somewhat limited		Very limited	
	Slow water movement	0.94	Slow water movement	0.94	Gravel content	1.00
	Gravel content	0.32	Gravel content	0.32	Slow water movement	0.94
					Slope	0.50
Tallapoosa	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Gravel content	1.00
	Gravel content	0.08	Gravel content	0.08	Depth to bedrock	1.00
					Slope	0.50
BfC:						
Badin	Somewhat limited		Somewhat limited		Very limited	
	Slow water movement	0.94	Slow water movement	0.94	Slope	1.00
					Slow water movement	0.94
					Depth to bedrock	0.65
					Gravel content	0.22
Tallapoosa	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Gravel content	1.00
	Gravel content	0.08	Gravel content	0.08	Depth to bedrock	1.00
					Slope	1.00
Fruithurst	Somewhat limited		Somewhat limited		Very limited	
	Gravel content	0.05	Gravel content	0.05	Gravel content	1.00
					Slope	1.00
					Depth to bedrock	0.46

Table 9a.—Recreation (Part 1)—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
BmD2:						
Bethlehem	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
	Gravel content	0.04	Gravel content	0.04	Gravel content	1.00
					Depth to bedrock	0.46
Madison	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.16	Slope	0.16	Slope	1.00
CeB2:						
Cecil	Not limited		Not limited		Somewhat limited	
					Slope	0.12
CeC2:						
Cecil	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.01	Slope	0.01	Slope	1.00
ChA:						
Chewacla	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.40	Flooding	1.00
Cartecay	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.99	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.40	Flooding	1.00
Toccoa	Very limited		Somewhat limited		Very limited	
	Flooding	1.00	Flooding	0.40	Flooding	1.00
DaB:						
Davidson	Not limited		Not limited		Somewhat limited	
					Slope	0.50
DAM:						
Dam	Not rated		Not rated		Not rated	
DdD3:						
Davidson	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
DeB:						
Decatur	Not limited		Not limited		Somewhat limited	
					Slope	0.50
EnB:						
Enon	Somewhat limited		Somewhat limited		Very limited	
	Slow water movement	0.94	Slow water movement	0.94	Gravel content	1.00
	Gravel content	0.07	Gravel content	0.07	Slow water movement	0.94
					Slope	0.50
Wynott	Somewhat limited		Somewhat limited		Very limited	
	Slow water movement	0.94	Slow water movement	0.94	Gravel content	1.00
	Gravel content	0.47	Gravel content	0.47	Slow water movement	0.94
					Slope	0.50
					Depth to bedrock	0.01

Table 9a.—Recreation (Part 1)—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
GrD:						
Grover	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.01	Slope	0.01	Slope	1.00
					Gravel content	0.23
HdB:						
Hard Labor	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.32	Too sandy	0.32	Slope	0.50
	Slow water movement	0.15	Slow water movement	0.15	Too sandy	0.32
					Slow water movement	0.15
HdC:						
Hard Labor	Somewhat limited		Somewhat limited		Very limited	
	Too sandy	0.32	Too sandy	0.32	Slope	1.00
	Slow water movement	0.15	Slow water movement	0.15	Too sandy	0.32
	Slope	0.01	Slope	0.01	Slow water movement	0.15
LcB:						
Locust	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.77	Depth to saturated zone	0.43	Gravel content	1.00
	Too sandy	0.01	Too sandy	0.01	Depth to saturated zone	0.77
	Gravel content	0.01	Gravel content	0.01	Slope	0.50
					Too sandy	0.01
LoF:						
Louisa	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
Mountain Park	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.56
					Depth to bedrock	0.29
LrD:						
Louisburg	Very limited		Very limited		Very limited	
	Large stones content	1.00	Large stones content	1.00	Large stones content	1.00
	Slope	0.37	Slope	0.37	Slope	1.00
					Gravel content	0.98
Rion	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
					Gravel content	0.98
Rock Outcrop	Not rated		Not rated		Not rated	
LrE:						
Louisburg	Very limited		Very limited		Very limited	
	Slope	1.00	Large stones content	1.00	Large stones content	1.00
	Large stones content	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.98
Rion	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.98

Table 9a.—Recreation (Part 1)—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Camp areas: Value	Picnic areas: Rating class and limiting features	Picnic areas: Value	Playgrounds: Rating class and limiting features	Playgrounds: Value
Rock Outcrop	Not rated		Not rated		Not rated	
MaB2:						
Madison	Not limited		Not limited		Somewhat limited	
					Slope	0.50
Rion	Not limited		Not limited		Somewhat limited	
					Gravel content	0.98
					Slope	0.88
MaD2:						
Madison	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.84	Slope	0.84	Slope	1.00
MdE2:						
Madison	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Louisa	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
MxD2:						
Mecklenburg	Somewhat limited		Somewhat limited		Very limited	
	Slow water movement	0.94	Slow water movement	0.94	Slope	1.00
	Slope	0.84	Slope	0.84	Slow water movement	0.94
					Gravel content	0.22
PaC2:						
Pacolet	Somewhat limited		Somewhat limited		Very limited	
	Large stones content	0.76	Large stones content	0.76	Slope	1.00
					Large stones content	0.76
					Gravel content	0.22
PrD2:						
Pacolet	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.84	Slope	0.84	Slope	1.00
					Gravel content	0.22
Rion	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.16	Slope	0.16	Slope	1.00
					Gravel content	0.98
PrE2:						
Pacolet	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.22
Rion	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.98
ShA:						
Shellbluff	Very limited		Not limited		Somewhat limited	
	Flooding	1.00			Flooding	0.60
SpB:						
Springhill	Not limited		Not limited		Somewhat limited	
					Slope	0.50

Table 9a.—Recreation (Part 1)—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
SwF:						
Sweetapple----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
					Gravel content	0.13
					Depth to bedrock	0.03
Mountain Park-------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.56
					Depth to bedrock	0.29
TaD2:						
Tallapoosa----------	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Gravel content	1.00
	Slope	0.37	Slope	0.37	Slope	1.00
	Gravel content	0.08	Gravel content	0.08	Depth to bedrock	1.00
Badin---------------	Somewhat limited		Somewhat limited		Very limited	
	Slow water movement	0.94	Slow water movement	0.94	Slope	1.00
	Slope	0.37	Slope	0.37	Slow water movement	0.94
					Depth to bedrock	0.65
					Gravel content	0.22
Fruithurst----------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
	Gravel content	0.05	Gravel content	0.05	Gravel content	1.00
					Depth to bedrock	0.46
TfE2:						
Tallapoosa----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Gravel content	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
	Gravel content	0.08	Gravel content	0.08	Depth to bedrock	1.00
Fruithurst----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Gravel content	0.05	Gravel content	0.05	Gravel content	1.00
					Depth to bedrock	0.46
ToA:						
Toccoa--------------	Very limited		Not limited		Somewhat limited	
	Flooding	1.00			Flooding	0.60
TwD:						
Townley-------------	Very limited		Very limited		Very limited	
	Slow water movement	1.00	Slow water movement	1.00	Slope	1.00
	Gravel content	0.42	Gravel content	0.42	Slow water movement	1.00
	Slope	0.16	Slope	0.16	Gravel content	1.00
					Depth to bedrock	0.46
TxE:						
Townley-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Slow water movement	1.00	Slow water movement	1.00	Slow water movement	1.00
	Gravel content	0.42	Gravel content	0.42	Gravel content	1.00
					Depth to bedrock	0.46

Table 9a.—Recreation (Part 1)—Continued

Map symbol and soil name	Camp areas: Rating class and limiting features	Value	Picnic areas: Rating class and limiting features	Value	Playgrounds: Rating class and limiting features	Value
Montevallo----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Gravel content	0.16	Gravel content	0.16	Gravel content	1.00
WeC2:						
Wedowee------------	Not limited		Not limited		Very limited	
					Slope	1.00
					Gravel content	0.07
WeD2:						
Wedowee------------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.84	Slope	0.84	Slope	1.00
					Gravel content	0.07
WfE:						
Wedowee------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
					Gravel content	0.07
WhA:						
Wehadkee-----------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.40	Flooding	1.00
WkB:						
Wickham------------	Very limited		Not limited		Somewhat limited	
	Flooding	1.00			Slope	0.50
WnE:						
Wynott-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Slow water movement	0.94	Slow water movement	0.94	Gravel content	1.00
	Gravel content	0.36	Gravel content	0.36	Slow water movement	0.94
	Large stones content	0.19	Large stones content	0.19	Large stones content	0.19
					Depth to bedrock	0.01
Wilkes-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Gravel content	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
	Large stones content	0.19	Large stones content	0.19	Depth to bedrock	1.00
	Gravel content	0.18	Gravel content	0.18	Large stones content	0.19
	Slow water movement	0.15	Slow water movement	0.15	Slow water movement	0.15
WyD:						
Wynott-------------	Somewhat limited		Somewhat limited		Very limited	
	Slow water movement	0.94	Slow water movement	0.94	Slope	1.00
	Gravel content	0.36	Gravel content	0.36	Gravel content	1.00
	Large stones content	0.19	Large stones content	0.19	Slow water movement	0.94
	Slope	0.16	Slope	0.16	Large stones content	0.19
					Depth to bedrock	0.01

Table 9a.—Recreation (Part 1)—Continued

Map symbol and soil name	Camp areas		Picnic areas		Playgrounds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Winnsboro-----------	Somewhat limited		Somewhat limited		Very limited	
	Slow water movement	0.94	Slow water movement	0.94	Slope	1.00
					Gravel content	1.00
	Large stones content	0.19	Large stones content	0.19	Slow water movement	0.94
	Slope	0.16	Slope	0.16	Large stones content	0.19
	Gravel content	0.11	Gravel content	0.11		

Table 9b.—Recreation (Part 2)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Paths and trails		Off-road motorcycle trails		Golf fairways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AcB:						
Alcovy	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
					Gravel content	0.01
AlC2:						
Allen	Not limited		Not limited		Somewhat limited	
					Gravel content	0.12
AtB:						
Altavista	Not limited		Not limited		Somewhat limited	
					Depth to saturated zone	0.19
BdB2:						
Badin	Not limited		Not limited		Somewhat limited	
					Depth to bedrock	0.65
Tatum	Not limited		Not limited		Somewhat limited	
					Gravel content	0.32
Tallapoosa	Not limited		Not limited		Very limited	
					Depth to bedrock	1.00
					Droughty	0.70
					Gravel content	0.08
BfC:						
Badin	Not limited		Not limited		Somewhat limited	
					Depth to bedrock	0.65
Tallapoosa	Not limited		Not limited		Very limited	
					Depth to bedrock	1.00
					Droughty	0.70
					Gravel content	0.08
Fruithurst	Not limited		Not limited		Somewhat limited	
					Depth to bedrock	0.46
					Gravel content	0.05
BmD2:						
Bethlehem	Not limited		Not limited		Somewhat limited	
					Depth to bedrock	0.46
					Slope	0.37
					Gravel content	0.04
					Droughty	0.01
					Large stones content	0.01
Madison	Not limited		Not limited		Somewhat limited	
					Slope	0.16
CeB2:						
Cecil	Not limited		Not limited		Not limited	

Table 9b.—Recreation (Part 2)—Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
CeC2:						
Cecil----------------	Not limited		Not limited		Somewhat limited	
					Slope	0.01
ChA:						
Chewacla------------	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99	Flooding	1.00
	Flooding	0.40	Flooding	0.40	Depth to saturated zone	0.99
Cartecay------------	Somewhat limited		Somewhat limited		Very limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.99	Flooding	1.00
	Flooding	0.40	Flooding	0.40	Depth to saturated zone	0.99
Toccoa--------------	Somewhat limited		Somewhat limited		Very limited	
	Flooding	0.40	Flooding	0.40	Flooding	1.00
DaB:						
Davidson------------	Not limited		Not limited		Not limited	
DAM:						
Dam-----------------	Not rated		Not rated		Not rated	
DdD3:						
Davidson------------	Not limited		Not limited		Somewhat limited	
					Slope	0.37
DeB:						
Decatur-------------	Not limited		Not limited		Not limited	
EnB:						
Enon----------------	Not limited		Not limited		Somewhat limited	
					Gravel content	0.07
Wynott--------------	Not limited		Not limited		Somewhat limited	
					Gravel content	0.47
					Depth to bedrock	0.01
GrD:						
Grover--------------	Not limited		Not limited		Somewhat limited	
					Slope	0.01
HdB:						
Hard Labor----------	Somewhat limited		Somewhat limited		Not limited	
	Too sandy	0.32	Too sandy	0.32		
HdC:						
Hard Labor----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Too sandy	0.32	Too sandy	0.32	Slope	0.01
LcB:						
Locust--------------	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.08	Depth to saturated zone	0.08	Depth to saturated zone	0.43
	Too sandy	0.01	Too sandy	0.01	Droughty	0.06
					Gravel content	0.01

Table 9b.—Recreation (Part 2)—Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
LoF:						
Louisa	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.78	Slope	1.00
					Depth to bedrock	1.00
					Droughty	0.97
Mountain Park	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.78	Slope	1.00
					Depth to bedrock	0.29
					Droughty	0.02
LrD:						
Louisburg	Very limited		Very limited		Somewhat limited	
	Large stones content	1.00	Large stones content	1.00	Slope	0.37
					Large stones content	0.32
Rion	Not limited		Not limited		Somewhat limited	
					Slope	0.37
					Large stones content	0.32
Rock Outcrop	Not rated		Not rated		Not rated	
LrE:						
Louisburg	Very limited		Very limited		Very limited	
	Large stones content	1.00	Large stones content	1.00	Slope	1.00
	Slope	1.00			Large stones content	0.32
Rion	Very limited		Not limited		Very limited	
	Slope	1.00			Slope	1.00
					Large stones content	0.32
Rock Outcrop	Not rated		Not rated		Not rated	
MaB2:						
Madison	Not limited		Not limited		Not limited	
Rion	Not limited		Not limited		Somewhat limited	
					Large stones content	0.32
MaD2:						
Madison	Not limited		Not limited		Somewhat limited	
					Slope	0.84
MdE2:						
Madison	Somewhat limited		Not limited		Very limited	
	Slope	0.50			Slope	1.00
Louisa	Somewhat limited		Not limited		Very limited	
	Slope	0.50			Slope	1.00
					Depth to bedrock	1.00
					Droughty	0.97
MxD2:						
Mecklenburg	Not limited		Not limited		Somewhat limited	
					Slope	0.84

Table 9b.—Recreation (Part 2)—Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Value	Off-road motorcycle trails: Rating class and limiting features	Value	Golf fairways: Rating class and limiting features	Value
PaC2:						
Pacolet-------------	Somewhat limited		Somewhat limited		Not limited	
	Large stones content	0.76	Large stones content	0.76		
PrD2:						
Pacolet-------------	Not limited		Not limited		Somewhat limited	
					Slope	0.84
Rion----------------	Not limited		Not limited		Somewhat limited	
					Large stones content	0.32
					Slope	0.16
PrE2:						
Pacolet-------------	Somewhat limited		Not limited		Very limited	
	Slope	0.50			Slope	1.00
Rion----------------	Somewhat limited		Not limited		Very limited	
	Slope	0.50			Slope	1.00
					Large stones content	0.32
ShA:						
Shellbluff----------	Not limited		Not limited		Somewhat limited	
					Flooding	0.60
SpB:						
Springhill----------	Not limited		Not limited		Not limited	
SwF:						
Sweetapple----------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.22	Slope	1.00
					Droughty	0.70
					Depth to bedrock	0.03
					Large stones content	0.03
Mountain Park-------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Slope	0.22	Slope	1.00
					Depth to bedrock	0.29
					Droughty	0.02
TaD2:						
Tallapoosa----------	Not limited		Not limited		Very limited	
					Depth to bedrock	1.00
					Droughty	0.70
					Slope	0.37
					Gravel content	0.08
Badin---------------	Very limited		Very limited		Somewhat limited	
	Water erosion	1.00	Water erosion	1.00	Depth to bedrock	0.65
					Slope	0.37
Fruithurst----------	Not limited		Not limited		Somewhat limited	
					Depth to bedrock	0.46
					Slope	0.37
					Gravel content	0.05

Table 9b.—Recreation (Part 2)—Continued

Map symbol and soil name	Paths and trails: Rating class and limiting features	Paths and trails: Value	Off-road motorcycle trails: Rating class and limiting features	Off-road motorcycle trails: Value	Golf fairways: Rating class and limiting features	Golf fairways: Value
TfE2:						
Tallapoosa	Very limited		Not limited		Very limited	
	Slope	1.00			Slope	1.00
					Depth to bedrock	1.00
					Droughty	0.70
					Gravel content	0.08
Fruithurst	Very limited		Not limited		Very limited	
	Slope	1.00			Slope	1.00
					Depth to bedrock	0.46
					Gravel content	0.05
ToA:						
Toccoa	Not limited		Not limited		Somewhat limited	
					Flooding	0.60
TwD:						
Townley	Not limited		Not limited		Somewhat limited	
					Depth to bedrock	0.46
					Gravel content	0.42
					Slope	0.16
					Droughty	0.03
TxE:						
Townley	Very limited		Not limited		Very limited	
	Slope	1.00			Slope	1.00
					Depth to bedrock	0.46
					Gravel content	0.42
					Droughty	0.03
Montevallo	Very limited		Not limited		Very limited	
	Slope	1.00			Slope	1.00
					Depth to bedrock	1.00
					Droughty	0.98
					Gravel content	0.16
WeC2:						
Wedowee	Not limited		Not limited		Somewhat limited	
					Large stones content	0.32
WeD2:						
Wedowee	Not limited		Not limited		Somewhat limited	
					Slope	0.84
					Large stones content	0.32
WfE:						
Wedowee	Very limited		Not limited		Very limited	
	Slope	1.00			Slope	1.00
					Large stones content	0.32
WhA:						
Wehadkee	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Flooding	0.40	Flooding	0.40	Depth to saturated zone	1.00
WkB:						
Wickham	Not limited		Not limited		Not limited	

Table 9b.—Recreation (Part 2)—Continued

Map symbol and soil name	Paths and trails		Off-road motorcycle trails		Golf fairways	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WnE:						
Wynott	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Large stones content	0.19	Slope	1.00
	Large stones content	0.19			Gravel content	0.36
					Depth to bedrock	0.01
					Large stones content	0.01
Wilkes	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.98	Large stones content	0.19	Slope	1.00
	Large stones content	0.19			Depth to bedrock	1.00
					Droughty	0.98
					Gravel content	0.18
WyD:						
Wynott	Somewhat limited		Somewhat limited		Somewhat limited	
	Large stones content	0.19	Large stones content	0.19	Gravel content	0.36
					Slope	0.16
					Depth to bedrock	0.01
					Large stones content	0.01
Winnsboro	Somewhat limited		Somewhat limited		Somewhat limited	
	Large stones content	0.19	Large stones content	0.19	Slope	0.16
					Gravel content	0.11
					Large stones content	0.01

Table 10.—Wildlife Habitat

(See text for definitions of terms used in this table. Absence of an entry indicates that no rating is applicable.)

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
AcB:										
Alcovy	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
AlC2:										
Allen	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
AtB:										
Altavista	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
BdB2:										
Badin	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Tatum	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Tallapoosa	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
BfC:										
Badin	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Tallapoosa	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Fruithurst	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
BmD2:										
Bethlehem	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Madison	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
CeB2:										
Cecil	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 10.—Wildlife Habitat—Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
CeC2:										
Cecil	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
CHA:										
Chewacla	Poor	Fair	Fair	Good	Good	Fair	Fair	Fair	Good	Fair
Cartecay	Poor	Fair	Fair	Good	Good	Fair	Poor	Fair	Good	Fair
Toccoa	Poor	Fair	Fair	Good	Good	Poor	Very poor	Fair	Good	Very poor
DaB:										
Davidson	Good	Good	Good	Good	Fair	Poor	Very poor	Good	Good	Poor
DdD3:										
Davidson	Fair	Good	Good	Good	Fair	Very poor	Very poor	Good	Fair	Very poor
DeB:										
Decatur	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
EnB:										
Enon	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Wynott	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
GrD:										
Grover	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
HdB:										
Hard Labor	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
HdC:										
Hard Labor	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor

Table 10.—Wildlife Habitat—Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
LoB:										
Locust	Fair	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
LoF:										
Louisa	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
Mountain Park	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
LrD:										
Louisburg	Poor	Fair	Fair	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor
Rion	Poor	Fair	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
Rock Outcrop	---	---	---	---	---	---	---	---	---	---
LrE:										
Louisburg	Poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Rion	Poor	Fair	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
Rock Outcrop	---	---	---	---	---	---	---	---	---	---
MaB2:										
Madison	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
MaD2:										
Madison	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
MdE2:										
Madison	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
Louisa	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor

Table 10.—Wildlife Habitat—Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
MxD2:										
Mecklenburg	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor
PaC2:										
Pacolet	Fair	Fair	Fair	Good	Good	Very poor	Very poor	Fair	Good	Very poor
PrD2:										
Pacolet	Fair	Fair	Fair	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Rion	Poor	Fair	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
PrE2:										
Pacolet	Fair	Fair	Fair	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Rion	Poor	Fair	Poor	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
ShA:										
Shellbluff	Good	Good	Good	Good	Good	Poor	Poor	Good	Good	Poor
SpB:										
Springhill	Fair	Good	Good	Good	Good	Very poor	---	---	---	---
SwF:										
Sweetapple	Very poor	Poor	Fair	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor
Mountain Park	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
TaD2:										
Tallapoosa	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Badin	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Fruithurst	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 10.—Wildlife Habitat—Continued

Map symbol and soil name	Potential for habitat elements: Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Wetland plants	Shallow water areas	Potential as habitat for--: Openland wildlife	Woodland wildlife	Wetland wildlife
TfE2:										
Tallapoosa	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
Fruithurst	Very poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
ToA:										
Toccoa	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor
TwD:										
Townley	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
TxE:										
Townley	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor
Montevallo	Very poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor
WeC2:										
Wedowee	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
WeD2:										
Wedowee	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
WfE:										
Wedowee	Poor	Fair	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor
WhA:										
Wehadkee	Very poor	Poor	Poor	Fair	Fair	Good	Fair	Poor	Fair	Fair
WkB:										
Wickham	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor

Table 10.—Wildlife Habitat—Continued

Map symbol and soil name	Potential for habitat elements							Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herba-ceous plants	Hardwood trees	Conif-erous plants	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
WnE:										
Wynott	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
WyD:										
Wynott	Very poor	Poor	Good	Good	Good	Very poor	Very poor	Poor	Good	Very poor
Winnsboro	Fair	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor

Table 11.—Hydric Soils

[This report lists only those map unit components that are rated as hydric. Dashes (---) in any column indicate that the data were not included in the database. Definitions of hydric criteria codes are included at the end of the report]

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
WhA: Wehadkee silt loam, 0 to 2 percent slopes, frequently flooded	Wehadkee	80	Flood plains	Yes	2B3

Explanation of hydric criteria codes:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
   - A. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
   - B. are poorly drained or very poorly drained and have either:
     - 1.) a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
     - 2.) a water table at a depth of 0.5 foot or less during the growing season if permeability is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or
     - 3.) a water table at a depth of 1.0 foot or less during the growing season if permeability is less than 6.0 in/hr in any layer within a depth of 20 inches.
3. Soils that are frequently ponded for long or very long duration during the growing season.
4. Soils that are frequently flooded for long or very long duration during the growing season.

Table 12a.—Building Site Development (Part 1)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AcB:						
Alcovy	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
AlC2:						
Allen	Not limited		Not limited		Somewhat limited	
					Slope	0.50
AtB:						
Altavista	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	0.39	Depth to saturated zone	1.00	Depth to saturated zone	0.39
BdB2:						
Badin	Not limited		Somewhat limited		Not limited	
			Depth to soft bedrock	0.64		
Tatum	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
Tallapoosa	Somewhat limited		Very limited		Somewhat limited	
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
BfC:						
Badin	Not limited		Somewhat limited		Somewhat limited	
			Depth to soft bedrock	0.64	Slope	0.50
Tallapoosa	Somewhat limited		Very limited		Somewhat limited	
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
					Slope	0.50
Fruithurst	Not limited		Somewhat limited		Somewhat limited	
			Depth to soft bedrock	0.46	Slope	0.50
BmD2:						
Bethlehem	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Depth to soft bedrock	0.46	Slope	1.00
			Slope	0.37		
Madison	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.16	Slope	0.16	Slope	1.00
CeB2:						
Cecil	Not limited		Not limited		Not limited	

Table 12a.—Building Site Development (Part 1)—Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
CeC2:						
Cecil	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.01	Slope	0.01	Slope	1.00
ChA:						
Chewacla	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Cartecay	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Toccoa	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
			Depth to saturated zone	0.73		
DaB:						
Davidson	Not limited		Not limited		Not limited	
DAM:						
Dam	Not rated		Not rated		Not rated	
DdD3:						
Davidson	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
DeB:						
Decatur	Somewhat limited		Somewhat limited		Somewhat limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
EnB:						
Enon	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
Wynott	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
			Depth to soft bedrock	0.01		
GrD:						
Grover	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.01	Slope	0.01	Slope	1.00
HdB:						
Hard Labor	Not limited		Somewhat limited		Not limited	
			Depth to saturated zone	0.99		
HdC:						
Hard Labor	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.01	Depth to saturated zone	0.99	Slope	1.00
			Slope	0.01		

Table 12a.—Building Site Development (Part 1)—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LcB:						
Locust----------------	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.77	Depth to saturated zone	1.00	Depth to saturated zone	0.77
LoF:						
Louisa----------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
Mountain Park---------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Depth to soft bedrock	0.29		
LrD:						
Louisburg-------------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
Rion------------------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Slope	0.37	Slope	1.00
Rock Outcrop----------	Not rated		Not rated		Not rated	
LrE:						
Louisburg-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Rion------------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Rock Outcrop----------	Not rated		Not rated		Not rated	
MaB2:						
Madison---------------	Not limited		Not limited		Not limited	
Rion------------------	Not limited		Not limited		Somewhat limited	
					Slope	0.12
MaD2:						
Madison---------------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.84	Slope	0.84	Slope	1.00
MdE2:						
Madison---------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Louisa----------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
MxD2:						
Mecklenburg-----------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.84	Slope	0.84	Slope	1.00
	Shrink-swell	0.50			Shrink-swell	0.50
PaC2:						
Pacolet---------------	Not limited		Not limited		Somewhat limited	
					Slope	0.88

Table 12a.—Building Site Development (Part 1)—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PrD2:						
Pacolet-------------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.84	Slope	0.84	Slope	1.00
Rion----------------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.16	Slope	0.16	Slope	1.00
PrE2:						
Pacolet-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Rion----------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
ShA:						
Shellbluff----------	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
			Depth to saturated zone	0.61		
SpB:						
Springhill----------	Not limited		Not limited		Not limited	
SwF:						
Sweetapple----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Depth to soft bedrock	0.03		
Mountain Park-------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Depth to soft bedrock	0.29		
TaD2:						
Tallapoosa----------	Somewhat limited		Very limited		Very limited	
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
	Slope	0.37	Slope	0.37	Slope	1.00
Badin---------------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Depth to soft bedrock	0.64	Slope	1.00
			Slope	0.37		
Fruithurst----------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.37	Depth to soft bedrock	0.46	Slope	1.00
			Slope	0.37		
TfE2:						
Tallapoosa----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
Fruithurst----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Depth to soft bedrock	0.46		

Table 12a.—Building Site Development (Part 1)—Continued

Map symbol and soil name	Dwellings without basements: Rating class and limiting features	Value	Dwellings with basements: Rating class and limiting features	Value	Small commercial buildings: Rating class and limiting features	Value
ToA:						
Toccoa	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
			Depth to saturated zone	0.73		
TwD:						
Townley	Somewhat limited		Somewhat limited		Very limited	
	Shrink-swell	0.50	Shrink-swell	0.50	Slope	1.00
	Slope	0.16	Depth to soft bedrock	0.46	Shrink-swell	0.50
			Slope	0.16		
TxE:						
Townley	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
			Depth to soft bedrock	0.46		
Montevallo	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to soft bedrock	0.50	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
WeC2:						
Wedowee	Not limited		Not limited		Somewhat limited	
					Slope	0.88
WeD2:						
Wedowee	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.84	Slope	0.84	Slope	1.00
WfE:						
Wedowee	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
WhA:						
Wehadkee	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
WkB:						
Wickham	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Flooding	1.00
WnE:						
Wynott	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
			Depth to soft bedrock	0.01		
Wilkes	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Shrink-swell	0.50	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
	Depth to soft bedrock	0.50	Shrink-swell	0.50	Shrink-swell	0.50

Table 12a.—Building Site Development (Part 1)—Continued

Map symbol and soil name	Dwellings without basements		Dwellings with basements		Small commercial buildings	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WyD:						
Wynott----------------	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
	Slope	0.16	Slope	0.16	Slope	1.00
			Depth to soft bedrock	0.01		
Winnsboro------------	Very limited		Very limited		Very limited	
	Shrink-swell	1.00	Shrink-swell	1.00	Shrink-swell	1.00
	Slope	0.16	Slope	0.16	Slope	1.00

Table 12b.—Building Site Development (Part 2)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AcB:						
Alcovy	Somewhat limited		Very limited		Somewhat limited	
	Low strength	0.22	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Depth to saturated zone	0.19	Cutbanks cave	0.10	Gravel content	0.01
AlC2:						
Allen	Not limited		Very limited		Somewhat limited	
			Cutbanks cave	1.00	Gravel content	0.12
AtB:						
Altavista	Somewhat limited		Very limited		Somewhat limited	
	Low strength	0.78	Depth to saturated zone	1.00	Depth to saturated zone	0.19
	Flooding	0.40	Cutbanks cave	0.10		
	Depth to saturated zone	0.19				
BdB2:						
Badin	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Depth to soft bedrock	0.64	Depth to bedrock	0.65
			Cutbanks cave	0.10		
Tatum	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Cutbanks cave	0.10	Gravel content	0.32
	Shrink-swell	0.50				
Tallapoosa	Very limited		Very limited		Very limited	
	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
					Droughty	0.70
	Low strength	1.00	Cutbanks cave	0.10	Gravel content	0.08
BfC:						
Badin	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Depth to soft bedrock	0.64	Depth to bedrock	0.65
			Cutbanks cave	0.10		
Tallapoosa	Very limited		Very limited		Very limited	
	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
					Droughty	0.70
	Low strength	1.00	Cutbanks cave	0.10	Gravel content	0.08
Fruithurst	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Depth to soft bedrock	0.46	Depth to bedrock	0.46
					Gravel content	0.05
			Cutbanks cave	0.10		
BmD2:						
Bethlehem	Somewhat limited		Somewhat limited		Somewhat limited	
	Frost action	0.50	Depth to soft bedrock	0.46	Depth to bedrock	0.46
	Slope	0.37			Slope	0.37
	Low strength	0.10	Slope	0.37	Gravel content	0.04
			Too clayey	0.28	Droughty	0.01
			Cutbanks cave	0.10	Large stones content	0.01

Table 12b.—Building Site Development (Part 2)—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Madison----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.16	Slope	0.16	Slope	0.16
	Low strength	0.02	Cutbanks cave	0.10		
CeB2:						
Cecil----------	Somewhat limited		Somewhat limited		Not limited	
	Low strength	0.10	Too clayey	0.27		
			Cutbanks cave	0.10		
CeC2:						
Cecil----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Low strength	0.10	Too clayey	0.27	Slope	0.01
	Slope	0.01	Cutbanks cave	0.10		
			Slope	0.01		
ChA:						
Chewacla----------	Very limited		Very limited		Very limited	
	Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Low strength	1.00	Flooding	0.80	Depth to saturated zone	0.99
	Depth to saturated zone	0.99	Cutbanks cave	0.10		
Cartecay----------	Very limited		Very limited		Very limited	
	Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
	Depth to saturated zone	0.99	Cutbanks cave	1.00	Depth to saturated zone	0.99
			Flooding	0.80		
Toccoa----------	Very limited		Somewhat limited		Very limited	
	Flooding	1.00	Flooding	0.80	Flooding	1.00
			Depth to saturated zone	0.73		
			Cutbanks cave	0.10		
DaB:						
Davidson----------	Somewhat limited		Somewhat limited		Not limited	
	Low strength	0.10	Too clayey	0.18		
			Cutbanks cave	0.10		
DAM:						
Dam----------	Not rated		Not rated		Not rated	
DdD3:						
Davidson----------	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37	Slope	0.37
	Low strength	0.10	Too clayey	0.18		
			Cutbanks cave	0.10		
DeB:						
Decatur----------	Somewhat limited		Somewhat limited		Not limited	
	Shrink-swell	0.50	Cutbanks cave	0.10		
EnB:						
Enon----------	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Too clayey	0.50	Gravel content	0.07
	Shrink-swell	1.00	Cutbanks cave	0.10		

Table 12b.—Building Site Development (Part 2)—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Wynott	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Too clayey	0.50	Gravel content	0.47
	Shrink-swell	1.00	Cutbanks cave	0.10	Depth to bedrock	0.01
			Depth to soft bedrock	0.01		
GrD:						
Grover	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.01	Cutbanks cave	0.10	Slope	0.01
			Slope	0.01		
HdB:						
Hard Labor	Somewhat limited		Somewhat limited		Not limited	
	Low strength	0.08	Depth to saturated zone	0.99		
			Too clayey	0.32		
			Cutbanks cave	0.10		
HdC:						
Hard Labor	Somewhat limited		Somewhat limited		Somewhat limited	
	Low strength	0.08	Depth to saturated zone	0.99	Slope	0.01
	Slope	0.01	Too clayey	0.32		
			Cutbanks cave	0.10		
			Slope	0.01		
LcB:						
Locust	Somewhat limited		Very limited		Somewhat limited	
	Depth to saturated zone	0.43	Depth to saturated zone	1.00	Depth to saturated zone	0.43
			Cutbanks cave	0.10	Droughty	0.06
					Gravel content	0.01
LoF:						
Louisa	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
	Depth to soft bedrock	1.00	Slope	1.00	Depth to bedrock	1.00
	Low strength	1.00	Cutbanks cave	0.10	Droughty	0.97
Mountain Park	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00	Depth to bedrock	0.29
			Depth to soft bedrock	0.29	Droughty	0.02
LrD:						
Louisburg	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37	Slope	0.37
			Cutbanks cave	0.10	Large stones content	0.32
Rion	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37	Slope	0.37
			Cutbanks cave	0.10	Large stones content	0.32
Rock Outcrop	Not rated		Not rated		Not rated	

Table 12b.—Building Site Development (Part 2)—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
LrE:						
Louisburg	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	0.10	Large stones content	0.32
Rion	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	0.10	Large stones content	0.32
Rock Outcrop	Not rated		Not rated		Not rated	
MaB2:						
Madison	Somewhat limited		Somewhat limited		Not limited	
	Low strength	0.02	Cutbanks cave	0.10		
Rion	Not limited		Somewhat limited		Somewhat limited	
			Cutbanks cave	0.10	Large stones content	0.32
MaD2:						
Madison	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.84	Slope	0.84	Slope	0.84
	Low strength	0.02	Cutbanks cave	0.10		
MdE2:						
Madison	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Low strength	0.02	Cutbanks cave	0.10		
Louisa	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
	Depth to soft bedrock	1.00	Slope	1.00	Depth to bedrock	1.00
	Low strength	1.00	Cutbanks cave	0.10	Droughty	0.97
MxD2:						
Mecklenburg	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Slope	0.84	Slope	0.84
	Slope	0.84	Too clayey	0.12		
	Shrink-swell	0.50	Cutbanks cave	0.10		
PaC2:						
Pacolet	Somewhat limited		Somewhat limited		Not limited	
	Low strength	0.10	Too clayey	0.50		
			Cutbanks cave	0.10		
PrD2:						
Pacolet	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.84	Slope	0.84	Slope	0.84
	Low strength	0.10	Too clayey	0.50		
			Cutbanks cave	0.10		
Rion	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.16	Slope	0.16	Large stones content	0.32
			Cutbanks cave	0.10	Slope	0.16

Table 12b.—Building Site Development (Part 2)—Continued

Map symbol and soil name	Local roads and streets		Shallow excavations		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PrE2:						
Pacolet	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Low strength	0.10	Too clayey	0.50		
			Cutbanks cave	0.10		
Rion	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	0.10	Large stones content	0.32
ShA:						
Shellbluff	Very limited		Somewhat limited		Somewhat limited	
	Flooding	1.00	Depth to saturated zone	0.61	Flooding	0.60
	Low strength	1.00	Flooding	0.60		
			Cutbanks cave	0.10		
SpB:						
Springhill	Not limited		Somewhat limited		Not limited	
			Cutbanks cave	0.10		
SwF:						
Sweetapple	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00	Droughty	0.70
			Depth to soft bedrock	0.03	Depth to bedrock	0.03
					Large stones content	0.03
Mountain Park	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
			Cutbanks cave	1.00	Depth to bedrock	0.29
			Depth to soft bedrock	0.29	Droughty	0.02
TaD2:						
Tallapoosa	Very limited		Very limited		Very limited	
	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
					Droughty	0.70
	Low strength	1.00	Slope	0.37	Slope	0.37
	Slope	0.37	Cutbanks cave	0.10	Gravel content	0.08
Badin	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Depth to soft bedrock	0.64	Depth to bedrock	0.65
	Slope	0.37			Slope	0.37
			Slope	0.37		
			Cutbanks cave	0.10		
Fruithurst	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Depth to soft bedrock	0.46	Depth to bedrock	0.46
	Slope	0.37			Slope	0.37
			Slope	0.37	Gravel content	0.05
			Cutbanks cave	0.10		
TfE2:						
Tallapoosa	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
	Depth to soft bedrock	1.00			Depth to bedrock	1.00
			Slope	1.00	Droughty	0.70
	Low strength	1.00	Cutbanks cave	0.10	Gravel content	0.08

Table 12b.—Building Site Development (Part 2)—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
Fruithurst----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Low strength	1.00	Depth to soft bedrock	0.46	Depth to bedrock	0.46
					Gravel content	0.05
			Cutbanks cave	0.10		
ToA:						
Toccoa--------------	Very limited		Somewhat limited		Somewhat limited	
	Flooding	1.00	Depth to saturated zone	0.73	Flooding	0.60
			Flooding	0.60		
			Cutbanks cave	0.10		
TwD:						
Townley-------------	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Depth to soft bedrock	0.46	Depth to bedrock	0.46
	Shrink-swell	0.50			Gravel content	0.42
	Slope	0.16	Too clayey	0.28	Slope	0.16
			Slope	0.16	Droughty	0.03
TxE:						
Townley-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Low strength	1.00	Depth to soft bedrock	0.46	Depth to bedrock	0.46
	Shrink-swell	0.50			Gravel content	0.42
			Too clayey	0.28	Droughty	0.03
Montevallo----------	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
	Depth to soft bedrock	1.00			Depth to bedrock	1.00
			Slope	1.00	Droughty	0.98
			Cutbanks cave	0.10	Gravel content	0.16
WeC2:						
Wedowee-------------	Somewhat limited		Somewhat limited		Somewhat limited	
	Low strength	0.10	Too clayey	0.12	Large stones content	0.32
			Cutbanks cave	0.10		
WeD2:						
Wedowee-------------	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.84	Slope	0.84	Slope	0.84
	Low strength	0.10	Too clayey	0.12	Large stones content	0.32
			Cutbanks cave	0.10		
WfE:						
Wedowee-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Low strength	0.10	Too clayey	0.12	Large stones content	0.32
			Cutbanks cave	0.10		
WhA:						
Wehadkee------------	Very limited		Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
					Depth to saturated zone	1.00
	Flooding	1.00	Flooding	0.80		
			Cutbanks cave	0.10		
WkB:						
Wickham-------------	Somewhat limited		Somewhat limited		Not limited	
	Flooding	0.40	Cutbanks cave	0.10		

Table 12b.—Building Site Development (Part 2)—Continued

Map symbol and soil name	Local roads and streets: Rating class and limiting features	Value	Shallow excavations: Rating class and limiting features	Value	Lawns and landscaping: Rating class and limiting features	Value
WnE:						
Wynott	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Low strength	1.00	Too clayey	0.50	Gravel content	0.36
	Shrink-swell	1.00	Cutbanks cave	0.10	Depth to bedrock	0.01
			Depth to soft bedrock	0.01	Large stones content	0.01
Wilkes	Very limited		Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00	Slope	1.00
	Depth to soft bedrock	1.00	Slope	1.00	Depth to bedrock	1.00
	Low strength	1.00	Cutbanks cave	0.10	Droughty	0.98
	Shrink-swell	0.50			Gravel content	0.18
WyD:						
Wynott	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Too clayey	0.50	Gravel content	0.36
	Shrink-swell	1.00	Slope	0.16	Slope	0.16
	Slope	0.16	Cutbanks cave	0.10	Depth to bedrock	0.01
			Depth to soft bedrock	0.01	Large stones content	0.01
Winnsboro	Very limited		Somewhat limited		Somewhat limited	
	Low strength	1.00	Too clayey	0.50	Slope	0.16
	Shrink-swell	1.00	Slope	0.16	Gravel content	0.11
	Slope	0.16	Cutbanks cave	0.10	Large stones content	0.01

Table 13a.—Sanitary Facilities (Part 1)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
AcB:				
Alcovy	Very limited		Somewhat limited	
	Slow water movement	1.00	Depth to saturated zone	0.75
	Depth to saturated zone	1.00	Seepage	0.50
			Slope	0.32
AlC2:				
Allen	Somewhat limited		Somewhat limited	
	Slow water movement	0.50	Slope	0.92
			Seepage	0.50
AtB:				
Altavista	Very limited		Very limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
			Flooding	0.40
	Slow water movement	0.50	Slope	0.08
	Flooding	0.40		
BdB2:				
Badin	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slow water movement	0.98	Slope	0.32
			Seepage	0.02
Tatum	Very limited		Somewhat limited	
	Slow water movement	1.00	Depth to soft bedrock	0.96
	Depth to bedrock	0.99	Seepage	0.50
			Slope	0.32
Tallapoosa	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
			Seepage	0.50
			Slope	0.32
BfC:				
Badin	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slow water movement	0.98	Slope	0.92
			Seepage	0.02
Tallapoosa	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
			Slope	0.92
			Seepage	0.50

Table 13a.—Sanitary Facilities (Part 1)—Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
Fruithurst----------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slow water movement	0.46	Slope	0.92
			Seepage	0.53
BmD2:				
Bethlehem-----------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slow water movement	0.50	Slope	1.00
	Slope	0.37	Seepage	0.50
Madison-------------	Somewhat limited		Very limited	
	Slow water movement	0.50	Slope	1.00
	Slope	0.16	Seepage	0.50
CeB2:				
Cecil---------------	Somewhat limited		Somewhat limited	
	Slow water movement	0.50	Seepage	0.50
			Slope	0.08
CeC2:				
Cecil---------------	Somewhat limited		Very limited	
	Slow water movement	0.50	Slope	1.00
	Slope	0.01	Seepage	0.50
ChA:				
Chewacla------------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	0.50	Seepage	0.50
Cartecay------------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Seepage, bottom layer	1.00	Depth to saturated zone	1.00
Toccoa--------------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Seepage, bottom layer	1.00	Depth to saturated zone	0.92
DaB:				
Davidson------------	Somewhat limited		Somewhat limited	
	Slow water movement	0.50	Seepage	0.50
			Slope	0.32
DAM:				
Dam-----------------	Not rated		Not rated	

Table 13a.—Sanitary Facilities (Part 1)—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
DdD3:				
Davidson	Somewhat limited		Very limited	
	Slow water movement	0.50	Slope	1.00
	Slope	0.37	Seepage	0.50
DeB:				
Decatur	Somewhat limited		Somewhat limited	
	Slow water movement	0.50	Seepage	0.50
			Slope	0.32
EnB:				
Enon	Very limited		Somewhat limited	
	Slow water movement	1.00	Slope	0.32
Wynott	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	0.32
			Seepage	0.18
GrD:				
Grover	Somewhat limited		Very limited	
	Slow water movement	0.50	Slope	1.00
	Slope	0.01	Seepage	0.50
HdB:				
Hard Labor	Very limited		Very limited	
	Slow water movement	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Slope	0.32
			Depth to saturated zone	0.19
HdC:				
Hard Labor	Very limited		Very limited	
	Slow water movement	1.00	Seepage	1.00
	Depth to saturated zone	1.00	Slope	1.00
	Slope	0.01	Depth to saturated zone	0.19
LcB:				
Locust	Very limited		Somewhat limited	
	Slow water movement	1.00	Depth to saturated zone	0.92
	Depth to saturated zone	1.00	Seepage	0.50
			Slope	0.32
LoF:				
Louisa	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
	Seepage, bottom layer	1.00	Seepage	1.00

Table 13a.—Sanitary Facilities (Part 1)—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Mountain Park-------	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slow water movement	0.50	Seepage	0.50
LrD:				
Louisburg-----------	Somewhat limited		Very limited	
	Slow water movement	0.50	Seepage	1.00
	Slope	0.37	Slope	1.00
	Depth to bedrock	0.11		
Rion----------------	Somewhat limited		Very limited	
	Slow water movement	0.50	Slope	1.00
	Slope	0.37	Seepage	0.50
Rock Outcrop--------	Not rated		Not rated	
LrE:				
Louisburg-----------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.50	Seepage	1.00
	Depth to bedrock	0.11		
Rion----------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.50	Seepage	0.50
Rock Outcrop--------	Not rated		Not rated	
MaB2:				
Madison-------------	Somewhat limited		Somewhat limited	
	Slow water movement	0.50	Seepage	0.50
			Slope	0.32
Rion----------------	Somewhat limited		Somewhat limited	
	Slow water movement	0.50	Slope	0.68
			Seepage	0.50
MaD2:				
Madison-------------	Somewhat limited		Very limited	
	Slope	0.84	Slope	1.00
	Slow water movement	0.50	Seepage	0.50
MdE2:				
Madison-------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.50	Seepage	0.50
Louisa--------------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
	Seepage, bottom layer	1.00	Seepage	1.00

Table 13a.—Sanitary Facilities (Part 1)—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
MxD2:				
Mecklenburg	Very limited		Very limited	
	Slow water movement	1.00	Slope	1.00
	Slope	0.84	Seepage	0.50
PaC2:				
Pacolet	Somewhat limited		Very limited	
	Slow water movement	0.50	Slope	1.00
			Seepage	0.50
PrD2:				
Pacolet	Somewhat limited		Very limited	
	Slope	0.84	Slope	1.00
	Slow water movement	0.50	Seepage	0.50
Rion	Somewhat limited		Very limited	
	Slow water movement	0.50	Slope	1.00
	Slope	0.16	Seepage	0.50
PrE2:				
Pacolet	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.50	Seepage	0.50
Rion	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.50	Seepage	0.50
ShA:				
Shellbluff	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Seepage, bottom layer	1.00	Seepage	1.00
	Depth to saturated zone	0.99	Depth to saturated zone	0.71
	Slow water movement	0.50		
SpB:				
Springhill	Very limited		Very limited	
	Seepage, bottom layer	1.00	Seepage	1.00
	Slow water movement	0.50	Slope	0.32
SwF:				
Sweetapple	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Seepage, bottom layer	1.00	Seepage	1.00

Table 13a.—Sanitary Facilities (Part 1)—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Mountain Park-------	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slow water movement	0.50	Seepage	1.00
TaD2:				
Tallapoosa----------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	0.37	Slope	1.00
			Seepage	0.50
Badin---------------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slow water movement	0.98	Slope	1.00
	Slope	0.37	Seepage	0.02
Fruithurst----------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slow water movement	0.46	Slope	1.00
	Slope	0.37	Seepage	0.53
TfE2:				
Tallapoosa----------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
			Seepage	0.50
Fruithurst----------	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slow water movement	0.46	Seepage	0.53
ToA:				
Toccoa--------------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Seepage	1.00
	Seepage, bottom layer	1.00	Depth to saturated zone	0.92
TwD:				
Townley-------------	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slope	0.16		
TxE:				
Townley-------------	Very limited		Very limited	
	Slope	1.00	Depth to soft bedrock	1.00
	Slow water movement	1.00	Slope	1.00
	Depth to bedrock	1.00		

Table 13a.—Sanitary Facilities (Part 1)—Continued

Map symbol and soil name	Septic tank absorption fields: Rating class and limiting features	Value	Sewage lagoons: Rating class and limiting features	Value
Montevallo----------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
			Seepage	0.50
WeC2:				
Wedowee-------------	Somewhat limited		Very limited	
	Slow water movement	0.50	Slope	1.00
			Seepage	0.50
WeD2:				
Wedowee-------------	Somewhat limited		Very limited	
	Slope	0.84	Slope	1.00
	Slow water movement	0.50	Seepage	0.50
WfE:				
Wedowee-------------	Very limited		Very limited	
	Slope	1.00	Slope	1.00
	Slow water movement	0.50	Seepage	0.50
WhA:				
Wehadkee------------	Very limited		Very limited	
	Flooding	1.00	Flooding	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00
	Slow water movement	0.46	Seepage	0.53
WkB:				
Wickham-------------	Very limited		Very limited	
	Seepage, bottom layer	1.00	Seepage	1.00
			Flooding	0.40
	Slow water movement	0.50	Slope	0.32
	Flooding	0.40		
WnE:				
Wynott--------------	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Seepage	0.18
Wilkes--------------	Very limited		Very limited	
	Depth to bedrock	1.00	Depth to soft bedrock	1.00
	Slope	1.00	Slope	1.00
WyD:				
Wynott--------------	Very limited		Very limited	
	Slow water movement	1.00	Depth to soft bedrock	1.00
	Depth to bedrock	1.00	Slope	1.00
	Slope	0.16	Seepage	0.18

Table 13a.—Sanitary Facilities (Part 1)—Continued

Map symbol and soil name	Septic tank absorption fields		Sewage lagoons	
	Rating class and limiting features	Value	Rating class and limiting features	Value
Winnsboro-----------	Very limited		Very limited	
	Slow water movement	1.00	Slope	1.00
	Depth to bedrock	0.47	Depth to soft bedrock	0.05
	Slope	0.16		

Table 13b.—Sanitary Facilities (Part 2)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AcB:						
Alcovy	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.99	Depth to saturated zone	0.75	Depth to saturated zone	0.86
AlC2:						
Allen	Somewhat limited		Not limited		Somewhat limited	
	Too clayey	0.50			Too clayey	0.50
AtB:						
Altavista	Very limited		Very limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.86
	Seepage, bottom layer	1.00	Flooding	0.40	Too clayey	0.50
	Flooding	0.40			Seepage	0.21
BdB2:						
Badin	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too clayey	0.50			Too clayey	0.50
Tatum	Very limited		Somewhat limited		Somewhat limited	
	Depth to bedrock	1.00	Depth to bedrock	0.96	Depth to bedrock	0.96
	Too clayey	0.50			Too clayey	0.50
Tallapoosa	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too clayey	0.50			Too clayey	0.50
BfC:						
Badin	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too clayey	0.50			Too clayey	0.50
Tallapoosa	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too clayey	0.50			Too clayey	0.50
Fruithurst	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too clayey	0.50			Too clayey	0.50
BmD2:						
Bethlehem	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too clayey	0.50	Slope	0.37	Too clayey	0.50
	Slope	0.37			Hard to compact	0.50
					Slope	0.37
Madison	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.16	Slope	0.16	Slope	0.16

Table 13b.—Sanitary Facilities (Part 2)—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
CeB2:						
Cecil	Somewhat limited		Not limited		Somewhat limited	
	Too clayey	0.50			Too clayey	0.50
					Hard to compact	0.50
CeC2:						
Cecil	Somewhat limited		Somewhat limited		Somewhat limited	
	Too clayey	0.50	Slope	0.01	Too clayey	0.50
	Slope	0.01			Hard to compact	0.50
					Slope	0.01
ChA:						
Chewacla	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Too clayey	0.50
	Too clayey	0.50				
Cartecay	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	1.00
	Seepage, bottom layer	1.00	Seepage	1.00		
Toccoa	Very limited		Very limited		Somewhat limited	
	Flooding	1.00	Flooding	1.00	Seepage	0.50
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Seepage, bottom layer	1.00	Seepage	1.00		
DaB:						
Davidson	Somewhat limited		Not limited		Somewhat limited	
	Too clayey	0.50			Too clayey	0.50
DAM:						
Dam	Not rated		Not rated		Not rated	
DdD3:						
Davidson	Somewhat limited		Somewhat limited		Somewhat limited	
	Too clayey	0.50	Slope	0.37	Too clayey	0.50
	Slope	0.37			Slope	0.37
DeB:						
Decatur	Somewhat limited		Not limited		Not limited	
	Too clayey	0.50				
EnB:						
Enon	Very limited		Not limited		Very limited	
	Too clayey	1.00			Too clayey	1.00
					Hard to compact	1.00
Wynott	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
	Too clayey	1.00			Hard to compact	1.00
					Depth to bedrock	1.00
GrD:						
Grover	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.01	Slope	0.01	Slope	0.01

Table 13b.—Sanitary Facilities (Part 2)—Continued

Map symbol and soil name	Trench sanitary landfill: Rating class and limiting features	Value	Area sanitary landfill: Rating class and limiting features	Value	Daily cover for landfill: Rating class and limiting features	Value
HdB:						
Hard Labor	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.86	Depth to saturated zone	0.19	Too clayey	0.50
	Too clayey	0.50			Depth to saturated zone	0.47
HdC:						
Hard Labor	Somewhat limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	0.86	Depth to saturated zone	0.19	Too clayey	0.50
	Too clayey	0.50	Slope	0.01	Depth to saturated zone	0.47
	Slope	0.01			Slope	0.01
LcB:						
Locust	Very limited		Somewhat limited		Somewhat limited	
	Depth to saturated zone	1.00	Depth to saturated zone	0.92	Depth to saturated zone	0.95
LoF:						
Louisa	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Depth to bedrock	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
	Seepage, bottom layer	1.00			Seepage	0.50
Mountain Park	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
LrD:						
Louisburg	Very limited		Very limited		Somewhat limited	
	Depth to bedrock	1.00	Seepage	1.00	Slope	0.37
	Slope	0.37	Slope	0.37		
Rion	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.37	Slope	0.37	Slope	0.37
Rock Outcrop	Not rated		Very limited		Not rated	
			Depth to bedrock	1.00		
			Slope	0.37		
LrE:						
Louisburg	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Seepage	1.00		
Rion	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Rock Outcrop	Not rated		Very limited		Not rated	
			Slope	1.00		
			Depth to bedrock	1.00		
MaB2:						
Madison	Not limited		Not limited		Not limited	
Rion	Not limited		Not limited		Not limited	
MaD2:						
Madison	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.84	Slope	0.84	Slope	0.84

Table 13b.—Sanitary Facilities (Part 2)—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MdE2:						
Madison-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Louisa--------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Depth to bedrock	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
	Seepage, bottom layer	1.00			Seepage	0.50
MxD2:						
Mecklenburg---------	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.84	Slope	0.84	Slope	0.84
PaC2:						
Pacolet-------------	Not limited		Not limited		Not limited	
PrD2:						
Pacolet-------------	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.84	Slope	0.84	Slope	0.84
Rion----------------	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.16	Slope	0.16	Slope	0.16
PrE2:						
Pacolet-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
Rion----------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
ShA:						
Shellbluff----------	Very limited		Very limited		Somewhat limited	
	Flooding	1.00	Flooding	1.00	Too clayey	0.50
	Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	0.21
	Seepage, bottom layer	1.00				
SpB:						
Springhill----------	Very limited		Not limited		Not limited	
	Seepage, bottom layer	1.00				
SwF:						
Sweetapple----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Seepage, bottom layer	1.00	Seepage	1.00		
Mountain Park-------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
			Seepage	1.00		
TaD2:						
Tallapoosa----------	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too clayey	0.50	Slope	0.37	Too clayey	0.50
	Slope	0.37			Slope	0.37

Table 13b.—Sanitary Facilities (Part 2)—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Badin---------------	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too clayey	0.50	Slope	0.37	Too clayey	0.50
	Slope	0.37			Slope	0.37
Fruithurst----------	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too clayey	0.50	Slope	0.37	Too clayey	0.50
	Slope	0.37			Slope	0.37
TfE2:						
Tallapoosa----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Depth to bedrock	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
	Too clayey	0.50			Too clayey	0.50
Fruithurst----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
	Too clayey	0.50			Too clayey	0.50
ToA:						
Toccoa--------------	Very limited		Very limited		Somewhat limited	
	Flooding	1.00	Flooding	1.00	Seepage	0.50
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
	Seepage, bottom layer	1.00	Seepage	1.00		
TwD:						
Townley-------------	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
	Too clayey	1.00	Slope	0.16	Hard to compact	1.00
	Slope	0.16			Depth to bedrock	1.00
					Slope	0.16
TxE:						
Townley-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
	Too clayey	1.00			Hard to compact	1.00
					Depth to bedrock	1.00
Montevallo----------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Depth to bedrock	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
	Too clayey	0.50			Gravel content	0.77
					Too clayey	0.50
WeC2:						
Wedowee-------------	Not limited		Not limited		Not limited	
WeD2:						
Wedowee-------------	Somewhat limited		Somewhat limited		Somewhat limited	
	Slope	0.84	Slope	0.84	Slope	0.84
WfE:						
Wedowee-------------	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00

Table 13b.—Sanitary Facilities (Part 2)—Continued

Map symbol and soil name	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WhA:						
Wehadkee	Very limited		Very limited		Very limited	
	Flooding	1.00	Flooding	1.00	Depth to saturated zone	1.00
	Depth to saturated zone	1.00	Depth to saturated zone	1.00		
WkB:						
Wickham	Very limited		Somewhat limited		Not limited	
	Seepage, bottom layer	1.00	Flooding	0.40		
	Flooding	0.40				
WnE:						
Wynott	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Slope	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
	Too clayey	1.00			Hard to compact	1.00
					Depth to bedrock	1.00
Wilkes	Very limited		Very limited		Very limited	
	Slope	1.00	Slope	1.00	Depth to bedrock	1.00
	Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	1.00
	Too clayey	1.00			Too clayey	1.00
					Hard to compact	1.00
WyD:						
Wynott	Very limited		Very limited		Very limited	
	Depth to bedrock	1.00	Depth to bedrock	1.00	Too clayey	1.00
	Too clayey	1.00	Slope	0.16	Hard to compact	1.00
	Slope	0.16			Depth to bedrock	1.00
					Slope	0.16
Winnsboro	Very limited		Somewhat limited		Very limited	
	Depth to bedrock	1.00	Slope	0.16	Too clayey	1.00
	Too clayey	1.00	Depth to bedrock	0.05	Slope	0.16
	Slope	0.16			Depth to bedrock	0.05

Table 14a.—Construction Materials (Part 1)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table.)

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
AcB:				
Alcovy	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
AlC2:				
Allen	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
AtB:				
Altavista	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.06
BdB2:				
Badin	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Tatum	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Tallapoosa	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
BfC:				
Badin	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Tallapoosa	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Fruithurst	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
BmD2:				
Bethlehem	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Madison	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.06

Table 14a.—Construction Materials (Part 1)—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
CeB2:				
Cecil---------------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.01
CeC2:				
Cecil---------------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.01
ChA:				
Chewacla------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Cartecay------------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.02
	Thickest layer	0.00	Bottom layer	0.09
Toccoa--------------	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
DaB:				
Davidson------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
DAM:				
Dam-----------------	Not rated		Not rated	
DdD3:				
Davidson------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
DeB:				
Decatur-------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
EnB:				
Enon----------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Wynott--------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
GrD:				
Grover--------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
HdB:				
Hard Labor----------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Table 14a.—Construction Materials (Part 1)—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
HdC:				
Hard Labor----------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
LcB:				
Locust--------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
LoF:				
Louisa--------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Mountain Park-------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.01
LrD:				
Louisburg-----------	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
Rion----------------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.03
Rock Outcrop--------	Not rated		Not rated	
LrE:				
Louisburg-----------	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
Rion----------------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.03
Rock Outcrop--------	Not rated		Not rated	
MaB2:				
Madison-------------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.06
Rion----------------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.03
MaD2:				
Madison-------------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.06
MdE2:				
Madison-------------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.06

Table 14a.—Construction Materials (Part 1)—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
Louisa	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
MxD2:				
Mecklenburg	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
PaC2:				
Pacolet	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
PrD2:				
Pacolet	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
Rion	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.03
PrE2:				
Pacolet	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
Rion	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.03
ShA:				
Shellbluff	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.06
SpB:				
Springhill	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.09
SwF:				
Sweetapple	Not rated		Not rated	
Mountain Park	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.01
TaD2:				
Tallapoosa	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Badin	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Fruithurst	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Table 14a.—Construction Materials (Part 1)—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
TfE2:				
Tallapoosa----------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Fruithurst----------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
ToA:				
Toccoa--------------	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.03
	Thickest layer	0.00	Thickest layer	0.03
TwD:				
Townley-------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
TxE:				
Townley-------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Montevallo----------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.05
WeC2:				
Wedowee-------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
WeD2:				
Wedowee-------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
WfE:				
Wedowee-------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
WhA:				
Wehadkee------------	Poor		Fair	
	Bottom layer	0.00	Bottom layer	0.02
	Thickest layer	0.00	Thickest layer	0.02
WkB:				
Wickham-------------	Poor		Fair	
	Bottom layer	0.00	Thickest layer	0.00
	Thickest layer	0.00	Bottom layer	0.10
WnE:				
Wynott--------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Wilkes--------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Table 14a.—Construction Materials (Part 1)—Continued

Map symbol and soil name	Potential source of gravel		Potential source of sand	
	Rating class	Value	Rating class	Value
WyD:				
Wynott--------------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00
Winnsboro-----------	Poor		Poor	
	Bottom layer	0.00	Bottom layer	0.00
	Thickest layer	0.00	Thickest layer	0.00

Table 14b.—Construction Materials (Part 2)

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
AcB:						
Alcovy	Fair		Fair		Fair	
	Organic matter content low	0.12	Wetness depth	0.53	Wetness depth	0.53
	Too acid	0.32	Low strength	0.78	Rock fragments	0.72
	Water erosion	0.99			Too acid	0.88
AlC2:						
Allen	Fair		Good		Fair	
	Organic matter content low	0.12			Rock fragments	0.97
	Too acid	0.61			Too acid	0.99
AtB:						
Altavista	Fair		Fair		Fair	
	Organic matter content low	0.12	Wetness depth	0.53	Wetness depth	0.53
	Too acid	0.20			Too acid	0.76
BdB2:						
Badin	Poor		Poor		Poor	
	Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Organic matter content low	0.12	Low strength	0.00	Depth to bedrock	0.35
	Depth to bedrock	0.35	Shrink-swell	0.99	Rock fragments	0.50
	Too acid	0.50			Too acid	0.82
	Droughty	0.76				
	Water erosion	0.99				
Tatum	Fair		Poor		Fair	
	Too clayey	0.02	Low strength	0.00	Too clayey	0.01
	Organic matter content low	0.12	Depth to bedrock	0.04	Too acid	0.88
	Too acid	0.50	Shrink-swell	0.87		
Tallapoosa	Poor		Poor		Poor	
	Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
	Droughty	0.00	Low strength	0.00	Too acid	0.82
	Organic matter content low	0.12				
	Too acid	0.50				
BfC:						
Badin	Poor		Poor		Poor	
	Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Organic matter content low	0.12	Low strength	0.00	Depth to bedrock	0.35
	Depth to bedrock	0.35	Shrink-swell	0.99	Rock fragments	0.50
	Too acid	0.50			Too acid	0.82
	Droughty	0.76				
	Water erosion	0.99				

Table 14b.—Construction Materials (Part 2)—Continued

Map symbol and soil name	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Tallapoosa----------	Poor		Poor		Poor	
	Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
	Droughty	0.00	Low strength	0.00	Too acid	0.82
	Organic matter content low	0.12				
	Too acid	0.50				
Fruithurst----------	Fair		Poor		Fair	
	Organic matter content low	0.12	Depth to bedrock	0.00	Depth to bedrock	0.54
	Too acid	0.50	Low strength	0.00	Too acid	0.88
	Depth to bedrock	0.54				
	Droughty	0.94				
	Water erosion	0.99				
BmD2:						
Bethlehem-----------	Poor		Poor		Poor	
	Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Organic matter content low	0.12	Low strength	0.10	Depth to bedrock	0.54
					Slope	0.63
	Droughty	0.23			Rock fragments	0.88
	Too acid	0.50			Too acid	0.88
	Depth to bedrock	0.54				
Madison-------------	Poor		Good		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter content low	0.02			Too acid	0.68
					Slope	0.84
	Too acid	0.16				
CeB2:						
Cecil---------------	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter content low	0.12			Too acid	0.92
	Too acid	0.39				
CeC2:						
Cecil---------------	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter content low	0.12			Too acid	0.92
	Too acid	0.39				
ChA:						
Chewacla------------	Fair		Poor		Poor	
	Too acid	0.61	Low strength	0.00	Wetness depth	0.00
			Wetness depth	0.00	Too acid	0.99
Cartecay------------	Fair		Poor		Poor	
	Too acid	0.39	Wetness depth	0.00	Wetness depth	0.00
					Rock fragments	0.97
					Too acid	0.98
Toccoa--------------	Fair		Good		Good	
	Too acid	0.84				
	Organic matter content low	0.88				

Table 14b.—Construction Materials (Part 2)—Continued

Map symbol and soil name	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
DaB:						
Davidson	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter content low	0.12			Too acid	0.98
	Too acid	0.54				
DAM:						
Dam	Not rated		Not rated		Not rated	
DdD3:						
Davidson	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.10	Too clayey	0.00
	Organic matter content low	0.12			Slope	0.63
	Too acid	0.68				
DeB:						
Decatur	Fair		Fair		Fair	
	Too clayey	0.02	Shrink-swell	0.87	Too clayey	0.01
	Too acid	0.54			Too acid	0.98
	Organic matter content low	0.88				
EnB:						
Enon	Poor		Fair		Poor	
	Too clayey	0.00	Shrink-swell	0.10	Too clayey	0.00
	Organic matter content low	0.12			Rock fragments	0.50
	Too acid	0.97				
Wynott	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Organic matter content low	0.12	Depth to bedrock	0.00	Depth to bedrock	0.99
			Shrink-swell	0.58		
	Too acid	0.68				
	Depth to bedrock	0.99				
GrD:						
Grover	Fair		Good		Fair	
	Organic matter content low	0.12			Rock fragments	0.85
					Too acid	0.95
	Too acid	0.20				
HdB:						
Hard Labor	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.22	Too clayey	0.00
	Organic matter content low	0.12	Wetness depth	0.89	Wetness depth	0.89
					Too acid	0.98
	Too acid	0.54				
HdC:						
Hard Labor	Poor		Fair		Poor	
	Too clayey	0.00	Low strength	0.22	Too clayey	0.00
	Organic matter content low	0.12	Wetness depth	0.89	Wetness depth	0.89
					Too acid	0.98
	Too acid	0.54				

Table 14b.—Construction Materials (Part 2)—Continued

Map symbol and soil name	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LcB:						
Locust	Fair		Fair		Fair	
	Organic matter content low	0.12	Wetness depth	0.32	Wetness depth	0.32
	Too acid	0.32			Rock fragments	0.72
	Water erosion	0.99			Too acid	0.88
LoF:						
Louisa	Poor		Poor		Poor	
	Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
	Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
	Organic matter content low	0.12	Low strength	0.00	Rock fragments	0.88
	Too acid	0.50			Too acid	0.99
Mountain Park	Fair		Poor		Poor	
	Organic matter content low	0.12	Slope	0.00	Slope	0.00
	Droughty	0.15	Depth to bedrock	0.00	Depth to bedrock	0.71
	Too acid	0.16			Too acid	0.92
	Depth to bedrock	0.71				
LrD:						
Louisburg	Fair		Good		Fair	
	Organic matter content low	0.12			Slope	0.63
	Too acid	0.54			Too acid	0.98
Rion	Fair		Good		Fair	
	Organic matter content low	0.12			Slope	0.63
	Too acid	0.61			Rock fragments	0.76
					Too acid	0.99
Rock Outcrop	Not rated		Not rated		Not rated	
LrE:						
Louisburg	Fair		Poor		Poor	
	Organic matter content low	0.12	Slope	0.00	Slope	0.00
	Too acid	0.54			Too acid	0.98
Rion	Fair		Poor		Poor	
	Organic matter content low	0.12	Slope	0.00	Slope	0.00
	Too acid	0.61			Rock fragments	0.76
					Too acid	0.99
Rock Outcrop	Not rated		Not rated		Not rated	
MaB2:						
Madison	Poor		Good		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter content low	0.02			Too acid	0.68
	Too acid	0.16				
Rion	Fair		Good		Fair	
	Organic matter content low	0.12			Rock fragments	0.76
	Too acid	0.61			Too acid	0.99

Table 14b.—Construction Materials (Part 2)—Continued

Map symbol and soil name	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
MaD2:						
Madison	Poor		Good		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter content low	0.02			Slope	0.16
	Too acid	0.16			Too acid	0.68
MdE2:						
Madison	Poor		Fair		Poor	
	Too clayey	0.00	Slope	0.50	Slope	0.00
	Organic matter content low	0.02			Too clayey	0.00
	Too acid	0.16			Too acid	0.68
Louisa	Poor		Poor		Poor	
	Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
	Depth to bedrock	0.00	Low strength	0.00	Depth to bedrock	0.00
	Organic matter content low	0.12	Slope	0.50	Rock fragments	0.88
	Too acid	0.50			Too acid	0.99
MxD2:						
Mecklenburg	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Organic matter content low	0.02			Slope	0.16
	Too acid	0.84				
PaC2:						
Pacolet	Poor		Good		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter content low	0.12			Too acid	0.98
	Too acid	0.54				
PrD2:						
Pacolet	Poor		Good		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter content low	0.12			Slope	0.16
	Too acid	0.54			Too acid	0.98
Rion	Fair		Good		Fair	
	Organic matter content low	0.12			Rock fragments	0.76
	Too acid	0.61			Slope	0.84
					Too acid	0.99
PrE2:						
Pacolet	Poor		Fair		Poor	
	Too clayey	0.00	Slope	0.50	Slope	0.00
	Organic matter content low	0.12			Too clayey	0.00
	Too acid	0.54			Too acid	0.98
Rion	Fair		Fair		Poor	
	Organic matter content low	0.12	Slope	0.50	Slope	0.00
	Too acid	0.61			Rock fragments	0.76
					Too acid	0.99

Table 14b.—Construction Materials (Part 2)—Continued

Map symbol and soil name	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
ShA:						
Shellbluff----------	Fair		Good		Good	
	Organic matter content low	0.12				
	Too acid	0.68				
SpB:						
Springhill----------	Fair		Good		Fair	
	Organic matter content low	0.12			Too acid	0.88
	Too acid	0.32				
SwF:						
Sweetapple----------	Not rated		Poor		Not rated	
			Depth to bedrock	0.00		
			Slope	0.00		
Mountain Park-------	Fair		Poor		Poor	
	Organic matter content low	0.12	Depth to bedrock	0.00	Slope	0.00
	Droughty	0.15	Slope	0.00	Depth to bedrock	0.71
	Too acid	0.16			Too acid	0.92
	Depth to bedrock	0.71				
TaD2:						
Tallapoosa----------	Poor		Poor		Poor	
	Depth to bedrock	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
	Droughty	0.00	Low strength	0.00	Slope	0.63
	Organic matter content low	0.12			Too acid	0.82
	Too acid	0.50				
Badin---------------	Poor		Poor		Poor	
	Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Organic matter content low	0.12	Low strength	0.00	Depth to bedrock	0.35
	Depth to bedrock	0.35	Shrink-swell	0.99	Rock fragments	0.50
	Too acid	0.50			Too acid	0.50
	Droughty	0.76			Slope	0.63
	Water erosion	0.99				
Fruithurst----------	Fair		Poor		Fair	
	Organic matter content low	0.12	Depth to bedrock	0.00	Depth to bedrock	0.54
	Too acid	0.50	Low strength	0.00	Slope	0.63
	Depth to bedrock	0.54			Too acid	0.88
	Droughty	0.94				
	Water erosion	0.99				
TfE2:						
Tallapoosa----------	Poor		Poor		Poor	
	Depth to bedrock	0.00	Depth to bedrock	0.00	Slope	0.00
	Droughty	0.00	Slope	0.00	Depth to bedrock	0.00
	Organic matter content low	0.12	Low strength	0.00	Too acid	0.82
	Too acid	0.50				

Table 14b.—Construction Materials (Part 2)—Continued

Map symbol and soil name	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
Fruithurst----------	Fair		Poor		Poor	
	Organic matter content low	0.12	Depth to bedrock	0.00	Slope	0.00
	Too acid	0.50	Slope	0.00	Depth to bedrock	0.54
	Depth to bedrock	0.54	Low strength	0.00	Too acid	0.88
	Droughty	0.94				
	Water erosion	0.99				
ToA:						
Toccoa--------------	Fair		Good		Good	
	Too acid	0.84				
	Organic matter content low	0.88				
TwD:						
Townley-------------	Poor		Poor		Poor	
	Too clayey	0.00	Depth to bedrock	0.00	Too clayey	0.00
	Organic matter content low	0.12	Low strength	0.00	Rock fragments	0.50
	Droughty	0.14	Shrink-swell	0.98	Depth to bedrock	0.54
	Too acid	0.50			Too acid	0.59
	Depth to bedrock	0.54			Slope	0.84
TxE:						
Townley-------------	Poor		Poor		Poor	
	Too clayey	0.00	Depth to bedrock	0.00	Slope	0.00
	Organic matter content low	0.12	Slope	0.00	Too clayey	0.00
	Droughty	0.14	Low strength	0.00	Rock fragments	0.50
	Too acid	0.50	Shrink-swell	0.98	Depth to bedrock	0.54
	Depth to bedrock	0.54			Too acid	0.59
Montevallo----------	Poor		Poor		Poor	
	Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
	Depth to bedrock	0.00	Slope	0.00	Rock fragments	0.00
	Organic matter content low	0.12			Depth to bedrock	0.00
	Too acid	0.50			Too acid	0.88
WeC2:						
Wedowee-------------	Poor		Good		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter content low	0.12			Too acid	0.59
	Too acid	0.50				
WeD2:						
Wedowee-------------	Poor		Good		Poor	
	Too clayey	0.00			Too clayey	0.00
	Organic matter content low	0.12			Slope	0.16
	Too acid	0.50			Too acid	0.59
WfE:						
Wedowee-------------	Poor		Poor		Poor	
	Too clayey	0.00	Slope	0.00	Slope	0.00
	Organic matter content low	0.12			Too clayey	0.00
	Too acid	0.50			Too acid	0.59

Table 14b.—Construction Materials (Part 2)—Continued

Map symbol and soil name	Potential source of reclamation material: Rating class and limiting features	Value	Potential source of roadfill: Rating class and limiting features	Value	Potential source of topsoil: Rating class and limiting features	Value
WhA:						
Wehadkee------------	Fair		Poor		Poor	
	Organic matter content low	0.12	Wetness depth	0.00	Wetness depth	0.00
	Too acid	0.88			Rock fragments	0.88
	Water erosion	0.99				
WkB:						
Wickham-------------	Fair		Good		Fair	
	Organic matter content low	0.50			Too acid	0.98
	Too acid	0.54				
WnE:						
Wynott--------------	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Slope	0.00
	Organic matter content low	0.12	Depth to bedrock	0.00	Too clayey	0.00
			Slope	0.00	Depth to bedrock	0.99
	Too acid	0.68	Shrink-swell	0.58		
	Depth to bedrock	0.99				
Wilkes--------------	Poor		Poor		Poor	
	Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
	Depth to bedrock	0.00	Low strength	0.00	Depth to bedrock	0.00
	Too clayey	0.00	Slope	0.02	Too clayey	0.00
	Organic matter content low	0.12	Shrink-swell	0.87		
	Too acid	0.84				
WyD:						
Wynott--------------	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Organic matter content low	0.12	Depth to bedrock	0.00	Slope	0.84
			Shrink-swell	0.58	Depth to bedrock	0.99
	Too acid	0.68				
	Depth to bedrock	0.99				
Winnsboro-----------	Poor		Poor		Poor	
	Too clayey	0.00	Low strength	0.00	Too clayey	0.00
	Organic matter content low	0.12	Shrink-swell	0.93	Slope	0.84
			Depth to bedrock	0.95		
	Too acid	0.92				

Table 15.—Water Management

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
AcB:						
Alcovy	Somewhat limited		Very limited		Very limited	
	Seepage	0.70	Depth to saturated zone	0.99	Depth to water	1.00
	Slope	0.08	Piping	0.94		
AlC2:						
Allen	Somewhat limited		Not limited		Very limited	
	Seepage	0.70			Depth to water	1.00
	Slope	0.68				
AtB:						
Altavista	Very limited		Very limited		Somewhat limited	
	Seepage	1.00	Depth to saturated zone	0.99	Cutbanks cave	0.10
			Piping	0.99	Depth to saturated zone	0.01
			Seepage	0.06		
BdB2:						
Badin	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.19	Thin layer	0.91	Depth to water	1.00
	Depth to bedrock	0.17				
	Slope	0.08				
Tatum	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.70	Hard to pack	0.58	Depth to water	1.00
	Slope	0.08	Thin layer	0.37		
	Depth to bedrock	0.01				
Tallapoosa	Somewhat limited		Very limited		Very limited	
	Depth to bedrock	0.61	Thin layer	1.00	Depth to water	1.00
	Slope	0.08	Piping	0.84		
BfC:						
Badin	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.68	Thin layer	0.91	Depth to water	1.00
	Seepage	0.19				
	Depth to bedrock	0.17				
Tallapoosa	Somewhat limited		Very limited		Very limited	
	Slope	0.68	Thin layer	1.00	Depth to water	1.00
	Depth to bedrock	0.61	Piping	0.84		
Fruithurst	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.72	Thin layer	0.86	Depth to water	1.00
	Slope	0.68	Piping	0.84		
	Depth to bedrock	0.11				
BmD2:						
Bethlehem	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Thin layer	0.86	Depth to water	1.00
	Seepage	0.70	Piping	0.39		
	Depth to bedrock	0.11				

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Madison	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Seepage	0.06	Depth to water	1.00
	Seepage	0.70				
CeB2:						
Cecil	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.70	Piping	0.85	Depth to water	1.00
			Seepage	0.01		
CeC2:						
Cecil	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Piping	0.85	Depth to water	1.00
	Seepage	0.70	Seepage	0.01		
ChA:						
Chewacla	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.70	Depth to saturated zone	1.00	Slow refill	0.30
					Cutbanks cave	0.10
			Piping	0.58		
Cartecay	Very limited		Very limited		Very limited	
	Seepage	1.00	Depth to saturated zone	1.00	Cutbanks cave	1.00
			Seepage	0.09		
Toccoa	Very limited		Somewhat limited		Somewhat limited	
	Seepage	1.00	Seepage	0.03	Depth to saturated zone	0.68
			Depth to saturated zone	0.02		
					Cutbanks cave	0.10
DaB:						
Davidson	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.70	Piping	0.13	Depth to water	1.00
	Slope	0.08				
DAM:						
Dam	Not rated		Not rated		Not rated	
DdD3:						
Davidson	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Piping	0.13	Depth to water	1.00
	Seepage	0.70				
DeB:						
Decatur	Somewhat limited		Not limited		Very limited	
	Seepage	0.70			Depth to water	1.00
	Slope	0.08				
EnB:						
Enon	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.08	Hard to pack	0.69	Depth to water	1.00
Wynott	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.43	Thin layer	0.56	Depth to water	1.00
	Slope	0.08	Hard to pack	0.33		
	Depth to bedrock	0.02				
GrD:						
Grover	Very limited		Not limited		Very limited	
	Slope	1.00			Depth to water	1.00
	Seepage	0.70				

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas: Rating class and limiting features	Value	Embankments, dikes, and levees: Rating class and limiting features	Value	Aquifer-fed excavated ponds: Rating class and limiting features	Value
HdB:						
Hard Labor----------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.08	Piping	0.94	Depth to water	1.00
	Seepage	0.05	Depth to saturated zone	0.86		
HdC:						
Hard Labor----------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Piping	0.94	Depth to water	1.00
	Seepage	0.05	Depth to saturated zone	0.86		
LcB:						
Locust--------------	Somewhat limited		Very limited		Very limited	
	Seepage	0.70	Depth to saturated zone	1.00	Depth to water	1.00
	Slope	0.08				
LoF:						
Louisa--------------	Very limited		Very limited		Very limited	
	Slope	1.00	Thin layer	1.00	Depth to water	1.00
	Depth to bedrock	0.58	Piping	0.30		
Mountain Park-------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Thin layer	0.81	Depth to water	1.00
	Seepage	0.70	Seepage	0.01		
	Depth to bedrock	0.08				
LrD:						
Louisburg-----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.03	Depth to water	1.00
	Slope	1.00				
Rion----------------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Seepage	0.03	Depth to water	1.00
	Seepage	0.70				
Rock Outcrop--------	Very limited		Not rated		Not rated	
	Depth to bedrock	1.00				
	Slope	1.00				
LrE:						
Louisburg-----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.03	Depth to water	1.00
	Slope	1.00				
Rion----------------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Seepage	0.03	Depth to water	1.00
	Seepage	0.70				
Rock Outcrop--------	Very limited		Not rated		Not rated	
	Slope	1.00				
	Depth to bedrock	1.00				
MaB2:						
Madison-------------	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.70	Seepage	0.06	Depth to water	1.00
	Slope	0.08				

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Rion----------------	Somewhat limited		Somewhat limited		Very limited	
	Seepage	0.70	Seepage	0.03	Depth to water	1.00
	Slope	0.32				
MaD2:						
Madison-------------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Seepage	0.06	Depth to water	1.00
	Seepage	0.70				
MdE2:						
Madison-------------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Seepage	0.06	Depth to water	1.00
	Seepage	0.70				
Louisa--------------	Very limited		Very limited		Very limited	
	Slope	1.00	Thin layer	1.00	Depth to water	1.00
	Depth to bedrock	0.58	Piping	0.30		
MxD2:						
Mecklenburg---------	Very limited		Not limited		Very limited	
	Slope	1.00			Depth to water	1.00
	Seepage	0.70				
PaC2:						
Pacolet-------------	Somewhat limited		Somewhat limited		Very limited	
	Slope	0.92	Seepage	0.03	Depth to water	1.00
	Seepage	0.70				
PrD2:						
Pacolet-------------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Seepage	0.03	Depth to water	1.00
	Seepage	0.70				
Rion----------------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Seepage	0.03	Depth to water	1.00
	Seepage	0.70				
PrE2:						
Pacolet-------------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Seepage	0.03	Depth to water	1.00
	Seepage	0.70				
Rion----------------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Seepage	0.03	Depth to water	1.00
	Seepage	0.70				
ShA:						
Shellbluff----------	Very limited		Very limited		Somewhat limited	
	Seepage	1.00	Piping	1.00	Depth to saturated zone	0.81
			Seepage	0.06		
					Cutbanks cave	0.10
SpB:						
Springhill----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.09	Depth to water	1.00
	Slope	0.08				

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SwF:						
Sweetapple----------	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Thin layer	0.61	Depth to water	1.00
	Slope	1.00	Seepage	0.03		
	Depth to bedrock	0.02				
Mountain Park-------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Thin layer	0.81	Depth to water	1.00
	Seepage	1.00	Seepage	0.01		
	Depth to bedrock	0.08				
TaD2:						
Tallapoosa----------	Very limited		Very limited		Very limited	
	Slope	1.00	Thin layer	1.00	Depth to water	1.00
	Depth to bedrock	0.61	Piping	0.84		
Badin---------------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Thin layer	0.91	Depth to water	1.00
	Seepage	0.19				
	Depth to bedrock	0.17				
Fruithurst----------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Thin layer	0.86	Depth to water	1.00
	Seepage	0.72	Piping	0.84		
	Depth to bedrock	0.11				
TfE2:						
Tallapoosa----------	Very limited		Very limited		Very limited	
	Slope	1.00	Thin layer	1.00	Depth to water	1.00
	Depth to bedrock	0.61	Piping	0.84		
Fruithurst----------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Thin layer	0.86	Depth to water	1.00
	Seepage	0.72	Piping	0.84		
	Depth to bedrock	0.11				
ToA:						
Toccoa--------------	Very limited		Somewhat limited		Somewhat limited	
	Seepage	1.00	Seepage	0.03	Depth to saturated zone	0.68
			Depth to saturated zone	0.02	Cutbanks cave	0.10
TwD:						
Townley-------------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Thin layer	0.86	Depth to water	1.00
	Depth to bedrock	0.11	Piping	0.30		
	Seepage	0.04				
TxE:						
Townley-------------	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Thin layer	0.86	Depth to water	1.00
	Depth to bedrock	0.11	Piping	0.30		
	Seepage	0.04				
Montevallo----------	Very limited		Very limited		Very limited	
	Slope	1.00	Thin layer	1.00	Depth to water	1.00
	Depth to bedrock	0.66	Seepage	0.05		

Table 15.—Water Management—Continued

Map symbol and soil name	Pond reservoir areas		Embankments, dikes, and levees		Aquifer-fed excavated ponds	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WeC2:						
Wedowee	Somewhat limited		Not limited		Very limited	
	Slope	0.92			Depth to water	1.00
	Seepage	0.70				
WeD2:						
Wedowee	Very limited		Not limited		Very limited	
	Slope	1.00			Depth to water	1.00
	Seepage	0.70				
WfE:						
Wedowee	Very limited		Not limited		Very limited	
	Slope	1.00			Depth to water	1.00
	Seepage	0.70				
WhA:						
Wehadkee	Somewhat limited		Very limited		Somewhat limited	
	Seepage	0.72	Depth to saturated zone	1.00	Slow refill	0.28
					Cutbanks cave	0.10
			Piping	1.00		
			Seepage	0.02		
WkB:						
Wickham	Very limited		Somewhat limited		Very limited	
	Seepage	1.00	Seepage	0.10	Depth to water	1.00
	Slope	0.08				
WnE:						
Wynott	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Thin layer	0.56	Depth to water	1.00
	Seepage	0.43	Hard to pack	0.33		
	Depth to bedrock	0.02				
Wilkes	Very limited		Very limited		Very limited	
	Slope	1.00	Thin layer	1.00	Depth to water	1.00
	Depth to bedrock	0.66				
WyD:						
Wynott	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Thin layer	0.56	Depth to water	1.00
	Seepage	0.43	Hard to pack	0.33		
	Depth to bedrock	0.02				
Winnsboro	Very limited		Somewhat limited		Very limited	
	Slope	1.00	Thin layer	0.01	Depth to water	1.00
	Seepage	0.05				
	Depth to bedrock	0.01				

Table 16.—Engineering Properties

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
AcB:												
Alcovy----------	0-6	Sandy loam	ML, SM	A-2, A-4	0	0	75-100	60-90	50-80	30-60	0-30	NP-7
	6-21	Sandy clay loam	CL	A-6	0	0	85-100	75-90	65-80	55-65	25-35	12-20
	21-28	Sandy clay loam	CL	A-6	0	0	85-100	75-90	65-80	55-65	25-35	12-20
	28-36	Clay loam	ML, CL-ML, CL	A-4, A-6	0	0	85-100	75-90	65-80	51-60	23-35	2-12
	36-55	Sandy clay loam	CL, CL-ML, ML	A-4, A-6	0	0	85-100	75-90	65-80	51-60	23-35	2-12
	55-80	Sandy clay, clay loam, sandy clay loam	CL, SC	A-4, A-6, A-7	0	0	95-100	85-100	70-90	40-75	30-50	8-22
AlC2:												
Allen-----------	0-3	Gravelly sandy loam	SC-SM, SM	A-2, A-2-4	0	0-8	75-90	60-75	45-70	15-25	0-26	NP-10
	3-7	Gravelly sandy clay loam	SC	A-4, A-6, A-7-6	0	0-10	85-100	75-100	65-98	20-36	20-43	4-19
	7-18	Sandy clay loam	SC	A-4, A-6, A-7-6	0	0-10	85-100	75-100	65-98	20-36	20-43	4-19
	18-36	Sandy clay loam	SC	A-4, A-6, A-7-6	0	0-10	85-100	75-100	65-98	20-36	20-43	4-19
	36-80	Gravelly clay loam	CL, CL-ML, SC	A-4, A-6, A-7-6	0	0-10	85-100	75-100	65-98	20-50	20-43	4-19
AtB:												
Altavista-------	0-7	Sandy loam, loam	SM, SC-SM	A-4	0	0	95-100	90-100	65-99	35-60	20-30	NP-7
	7-11	Sandy clay loam, fine sandy loam, loam	SC, SM, SC-SM	A-4, A-6	0	0	95-100	90-100	60-99	35-75	30-45	8-12
	11-27	Clay loam, sandy clay loam, loam	CL, CL-ML, SC, SC-SM	A-4, A-6, A-7	0	0	95-100	95-100	60-99	45-75	25-45	5-28
	27-40	Clay loam, sandy clay loam, loam	SC, CL-ML, CL, SC-SM	A-4, A-6, A-7	0	0	95-100	95-100	60-99	45-75	25-45	5-28
	40-52	Sandy clay loam, fine sandy loam, loam	SC, SM, SC-SM	A-4, A-6	0	0	95-100	90-100	60-99	35-75	30-45	8-12
	52-80	Loam, fine sandy loam, sandy loam	ML, SC-SM, SM	A-4	0	0	95-100	90-100	60-99	35-75	20-30	NP-7
BdB2:												
Badin-----------	0-5	Loam	CL, CL-ML, ML	A-4, A-6	0	0	85-100	75-95	65-90	60-85	25-45	5-15
	5-14	Silty clay, silty clay loam, clay	CH, CL	A-7	0	0	65-100	60-100	55-100	50-98	45-60	15-35
	14-20	Silty clay, silty clay loam, clay	CL, CH	A-7	0	0	65-100	60-100	55-100	50-98	45-60	15-35
	20-28	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	28-80	Bedrock			0	---	---	---	---	---	---	---

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
	In				Pct	Pct					Pct	
Tatum-----------	0-5	Gravelly loam	GM, CL-ML, ML, SM	A-4	0	0	60-80	55-75	45-75	40-70	18-32	NP-10
	5-10	Loam	SM, ML, GM, CL-ML	A-4	0	0	75-100	75-95	60-95	40-70	18-32	NP-10
	10-15	Silty clay loam, silty clay, clay	MH, CH	A-7	0	0	75-100	75-95	60-95	55-95	50-80	20-45
	15-31	Clay, clay loam, silty clay	CL, CH	A-7	0	0	85-100	85-100	80-100	65-95	40-90	25-65
	31-42	Silty clay loam, silty clay, clay	MH, CH	A-7	0	0	75-100	75-95	60-95	55-95	50-80	20-45
	42-80	Bedrock			0	---	---	---	---	---	---	---
Tallapoosa------	0-4	Gravelly loam	SM, GM, CL-ML	A-2-4, A-4	0	0	70-85	65-75	45-65	30-50	25-40	5-10
	4-8	Gravelly loam	SM, CL-ML, GM	A-2-4, A-4	0	0	70-85	65-75	45-65	30-50	25-40	5-10
	8-12	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	12-16	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	16-80	Bedrock			0	---	---	---	---	---	---	---
BfC:												
Badin-----------	0-5	Loam	CL, CL-ML, ML	A-4, A-6	0	0	85-100	75-95	65-90	60-85	25-45	5-15
	5-14	Silty clay, silty clay loam, clay	CH, CL	A-7	0	0	65-100	60-100	55-100	50-98	45-60	15-35
	14-20	Silty clay, silty clay loam, clay	CL, CH	A-7	0	0	65-100	60-100	55-100	50-98	45-60	15-35
	20-28	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	28-80	Bedrock			0	---	---	---	---	---	---	---
Tallapoosa------	0-4	Gravelly loam	SM, CL-ML, GM	A-2-4, A-4	0	0	70-85	65-75	45-65	30-50	25-40	5-10
	4-8	Gravelly loam	CL-ML, GM, SM	A-2-4, A-4	0	0	70-85	65-75	45-65	30-50	25-40	5-10
	8-12	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	12-16	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	16-80	Bedrock			0	---	---	---	---	---	---	---
Fruithurst------	0-3	Gravelly loam	ML, SC-SM, CL-ML, SM	A-4	0	0-5	70-85	65-75	45-65	30-50	0-34	NP-7
	3-7	Loam, clay loam	ML, CL	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	7-21	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	21-30	Silt loam	CL, ML, CL-ML	A-4, A-6	0	0	95-100	90-100	70-100	60-90	22-35	2-12
	30-80	Bedrock			0	---	---	---	---	---	---	---

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
BmD2:												
Bethlehem-------	0-4	Gravelly sandy loam, gravelly loam	SM	A-1, A-2-4	0-2	0-8	74-88	50-76	32-49	17-26	12-20	NP-6
	4-12	Clay, clay loam, gravelly clay	CL, MH, CH, ML	A-6, A-7	0	0-5	65-100	50-93	45-90	40-81	30-65	12-30
	12-24	Clay, clay loam, gravelly clay	ML, CH, MH, CL	A-6, A-7	0	0-5	65-100	50-93	45-90	40-81	30-65	12-30
	24-30	Clay, clay loam, gravelly clay	CH, ML, CL, MH	A-6, A-7	0-2	0-5	65-100	50-93	45-90	40-81	30-65	12-30
	30-80	Bedrock			0	---	---	---	---	---	---	---
Madison---------	0-4	Fine sandy loam	SM, ML	A-2, A-4	0	0	85-100	80-100	60-90	26-55	0-35	NP-8
	4-10	Loam, sandy clay loam, clay loam	CL	A-4, A-6	0	0	90-100	85-100	70-95	50-80	20-40	7-20
	10-23	Clay, clay loam, sandy clay	MH, SC	A-7	0	0	90-100	85-100	75-100	40-85	25-75	12-35
	23-28	Clay loam, sandy clay loam, sandy loam	SC-SM, SC, CL, CL-ML	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-35	5-15
	28-40	Clay loam, sandy clay loam, sandy loam	SC, CL, SC-SM, CL-ML	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-35	5-15
	40-80	Fine sandy loam, sandy loam, loam	ML, SM, CL-ML	A-2, A-4	0	0	85-100	80-100	60-90	26-55	0-35	NP-7
CeB2:												
Cecil-----------	0-4	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2, A-4	0	0	84-100	80-100	67-90	26-42	15-30	NP-7
	4-12	Sandy clay loam, clay loam	CL, SM, ML, SC	A-4, A-6	0	0	75-100	75-100	68-95	38-81	21-40	3-17
	12-39	Clay, clay loam	ML, MH	A-5, A-7	0	0	97-100	92-100	72-100	55-95	41-80	9-37
	39-50	Clay loam, sandy clay loam	SM, SC, ML, CL	A-4, A-6	0	0	75-100	75-100	68-95	38-81	21-40	3-17
	50-64	Clay loam, sandy clay loam	CL, ML, SC, SM	A-4, A-6	0	0	75-100	75-100	68-95	38-81	21-40	3-17
	64-80	Sandy loam, fine sandy loam, loam	SM, SC-SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
CeC2:												
Cecil-----------	0-4	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2, A-4	0	0	84-100	80-100	67-90	26-42	15-30	NP-7
	4-12	Sandy clay loam, clay loam	CL, ML, SC, SM	A-4, A-6	0	0	75-100	75-100	68-95	38-81	21-40	3-17
	12-39	Clay, clay loam	ML, MH	A-5, A-7	0	0	97-100	92-100	72-100	55-95	41-80	9-37
	39-50	Clay loam, sandy clay loam	SC, CL, ML, SM	A-4, A-6	0	0	75-100	75-100	68-95	38-81	21-40	3-17
	50-64	Clay loam, sandy clay loam	CL, ML, SC, SM	A-4, A-6	0	0	75-100	75-100	68-95	38-81	21-40	3-17
	64-80	Sandy loam, fine sandy loam, loam	SM, SC-SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6
ChA:												
Chewacla--------	0-2	Silt loam, silty clay loam, clay loam	ML, CL	A-4, A-6, A-7	0	0	96-100	95-100	80-100	51-98	30-49	4-22
	2-6	Silt loam, silty clay loam, clay loam	ML, CL	A-4, A-6, A-7	0	0	96-100	95-100	80-100	51-98	30-49	4-22
	6-20	Silt loam, silty clay loam, clay loam	CL, ML	A-4, A-6, A-7	0	0	96-100	95-100	80-100	51-98	30-49	4-22
	20-27	Sandy clay loam, loam, sandy loam	CL-ML, SM, SC-SM, ML	A-4, A-6, A-7-6	0	0	96-100	95-100	60-100	36-70	20-45	2-15
	27-53	Silt loam, clay loam, silty clay loam	CH, CL, MH, ML	A-4, A-6, A-7	0	0	85-100	75-100	60-100	51-98	22-61	4-28
	53-80	Silt loam, clay loam, silty clay loam	CH, CL, MH, ML	A-4, A-6, A-7	0	0	85-100	75-100	60-100	51-98	22-61	4-28
Cartecay--------	0-3	Loam	ML, CL-ML, CL	A-4, A-6	0	0	98-100	95-100	90-100	75-95	15-40	NP-14
	3-13	Sandy loam, fine sandy loam, loam	SC, SC-SM, SM	A-2, A-4	0	0	90-100	75-100	60-85	25-50	0-30	NP-10
	13-18	Sandy loam, fine sandy loam, loam	SC-SM, SC, SM	A-2, A-4	0	0	90-100	75-100	60-85	25-50	0-30	NP-10
	18-32	Sandy loam, fine sandy loam, loam	SC-SM, SM, SC	A-2, A-4	0	0	90-100	75-100	60-85	25-50	0-30	NP-10
	32-47	Fine sandy loam, loamy fine sand, loamy sand, gravelly fine sandy loam	SM, SC	A-2, A-4	0	0	85-100	70-100	30-85	15-55	19-28	3-10
	47-80	Loamy sand, sand, fine sandy loam	SM	A-4, A-2	0	0	80-100	75-95	25-80	25-45	0-14	NP

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Toccoa----------	0-4	Fine sandy loam	ML, SM	A-2, A-4	0	0	95-100	95-100	50-85	30-55	0-30	NP-4
	4-28	Sandy loam, loam	ML, SM	A-2, A-4	0	0	95-100	90-100	60-100	30-55	0-30	NP-4
	28-36	Sandy loam, loam	SM, ML	A-2, A-4	0	0	95-100	90-100	60-100	30-55	0-30	NP-4
	36-43	Fine sandy loam, loam, silt loam, sandy loam	SC-SM, ML	A-4	0	0	95-100	90-100	55-100	30-90	18-27	2-9
	43-80	Sandy loam, loam	ML, SM	A-2, A-4	0	0	95-100	90-100	60-100	30-55	0-30	NP-4
DaB:												
Davidson--------	0-5	Clay loam	CL, CL-ML, ML	A-4, A-6	0	0	94-100	84-100	80-95	60-75	18-30	3-15
	5-30	Clay	CL	A-6	0	0	96-100	90-100	75-95	50-75	25-40	11-25
	30-80	Clay	CL	A-6	0	0	96-100	90-100	75-95	50-75	25-40	11-25
DAM:												
Dam-------------	---	---	---	---	---	---	---	---	---	---	---	---
DdD3:												
Davidson--------	0-5	Clay loam	ML, CL-ML, CL	A-4, A-6	0	0	94-100	84-100	80-95	60-75	18-30	3-15
	5-30	Clay	CL	A-6	0	0	96-100	90-100	75-95	50-75	25-40	11-25
	30-80	Clay	CL	A-6	0	0	96-100	90-100	75-95	50-75	25-40	11-25
DeB:												
Decatur---------	0-6	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0-3	90-100	90-98	85-98	65-80	0-32	NP-12
	6-11	Silty clay loam, silty clay, clay	CL	A-7	0	0-3	98-100	98-100	85-99	15-50	44-70	25-43
	11-60	Silty clay loam, silty clay, clay	CL	A-7	0	0-3	98-100	98-100	85-99	15-50	44-70	25-43
	60-80	Clay loam	CH, CL, MH, ML	A-6, A-7	0	0-3	90-100	90-100	88-98	75-90	37-60	11-28
EnB:												
Enon------------	0-4	Very gravelly sandy loam	GM, SM	A-4, A-6	0	0-5	70-85	60-75	50-75	40-55	25-38	5-12
	4-12	Loam, very gravelly sandy clay loam, sandy loam, gravelly sandy loam	GC, SC	A-2, A-4, A-6, A-7	0	0-10	70-85	60-75	30-75	22-75	30-50	8-22
	12-25	Clay	CH	A-7	0	0	99-100	60-100	60-100	55-95	54-115	29-85
	25-50	Clay	CH	A-7	0	0	99-100	60-100	60-100	55-95	54-115	29-85
	50-80	Loam, sandy clay loam, clay loam	CL-ML	A-4	0	0	98-100	85-100	70-95	40-75	20-40	5-15

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Wynott----------	0-8	Gravelly sandy loam	SM, ML, CL-ML, CL	A-4	0	0-5	80-100	50-75	40-70	35-65	20-34	2-10
	8-12	Gravelly sandy loam	SM, ML, CL, CL-ML	A-4	0	0-10	80-100	50-75	40-70	35-65	20-34	2-10
	12-23	Clay, clay loam, silty clay	CH, CL	A-7	0	0	85-100	85-100	80-100	65-95	40-90	25-65
	23-32	Clay, clay loam, silty clay	CH, CL	A-7	0	0	85-100	85-100	80-100	65-95	40-90	25-65
	32-38	Sandy clay, sandy clay loam, clay loam	CL, SC	A-6	0	0	85-100	85-100	70-95	35-85	25-50	7-25
	38-80	Bedrock			0	---	---	---	---	---	---	---
GrD:												
Grover----------	0-5	Loam	SC, SC-SM	A-2-4, A-4	0	0-2	78-100	69-100	41-95	21-75	19-29	NP-10
	5-23	Clay loam	SC-SM, SC	A-4	0	0-2	78-100	69-100	41-95	21-75	19-29	NP-10
	23-34	Clay loam, loam	CL	A-6	0	0-2	88-100	82-100	49-100	25-80	23-39	7-16
	34-50	Sandy loam, sandy clay loam	SC-SM, SC	A-6, A-4	0	0-2	84-100	77-100	46-90	23-55	21-34	6-13
	50-80	Sandy loam, sandy clay loam	SC-SM, SC	A-6, A-4	0	0-2	84-100	77-100	46-90	23-55	21-34	6-13
HdB:												
Hard Labor------	0-2	Loamy sand, sandy loam	SM, SC-SM	A-4, A-2	0	0	86-100	80-100	55-91	20-40	15-35	NP-7
	2-9	Loamy sand, sandy loam	SC-SM, SM	A-4, A-2	0	0	86-100	80-100	55-91	20-40	15-35	NP-7
	9-15	Loamy sand, sandy loam	SC-SM, SM	A-4, A-2	0	0	86-100	80-100	55-91	20-40	15-35	NP-7
	15-45	Sandy clay, clay loam, clay	CL	A-7, A-6	0	0	95-100	90-100	70-95	51-80	30-50	8-13
	45-52	Sandy clay, clay loam, sandy clay loam	CL, SC	A-4, A-6, A-7	0	0	95-100	85-100	70-90	40-75	30-50	8-22
	52-80	Sandy clay, clay loam, sandy clay loam	CL, SC	A-4, A-6, A-7	0	0	95-100	85-100	70-90	40-75	30-50	8-22
HdC:												
Hard Labor------	0-2	Loamy sand, sandy loam	SC-SM, SM	A-4, A-2	0	0	86-100	80-100	55-91	20-40	15-35	NP-7
	2-9	Loamy sand, sandy loam	SM, SC-SM	A-4, A-2	0	0	86-100	80-100	55-91	20-40	15-35	NP-7
	9-15	Loamy sand, sandy loam	SM, SC-SM	A-4, A-2	0	0	86-100	80-100	55-91	20-40	15-35	NP-7
	15-45	Sandy clay, clay loam, clay	CL	A-7, A-6	0	0	95-100	90-100	70-95	51-80	30-50	8-13
	45-52	Sandy clay, clay loam, sandy clay loam	CL, SC	A-4, A-6, A-7	0	0	95-100	85-100	70-90	40-75	30-50	8-22
	52-80	Sandy clay, clay loam, sandy clay loam	SC, CL	A-4, A-6, A-7	0	0	95-100	85-100	70-90	40-75	30-50	8-22

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
LcB:												
Locust----------	0-6	Fine sandy loam	ML, SM	A-2, A-4	0	0	75-100	60-90	50-80	30-60	0-30	NP-7
	6-12	Gravelly sandy loam, loam, sandy loam	CL	A-6	0	0	85-100	75-90	65-80	55-65	25-35	12-20
	12-24	Fine sandy loam, sandy clay loam	ML, CL, CL-ML	A-4, A-6	0	0	85-100	75-90	65-80	51-60	23-35	2-12
	24-30	Fine sandy loam, sandy clay loam	CL, CL-ML, ML	A-4, A-6	0	0	85-100	75-90	65-80	51-60	23-35	2-12
	30-62	Loam, sandy clay loam	CL, CL-ML, ML	A-4, A-6	0	0	85-100	75-90	65-80	51-60	23-35	2-12
	62-80	Channery clay loam, channery loam, channery sandy loam	SC-SM, SM, SC	A-1, A-2	0	0	75-95	50-80	45-75	20-35	23-35	2-12
LoF:												
Louisa----------	0-3	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2, A-4	0	0	84-100	80-100	67-90	26-42	15-30	NP-7
	3-10	Clay loam, sandy clay loam, loam, gravelly clay loam	SC, CL	A-6, A-2, A-4	0	0	70-95	60-90	50-90	20-70	20-44	6-25
	10-17	Clay loam, sandy clay loam, loam, gravelly clay loam	CL, SC	A-6, A-2, A-4	0	0	70-95	60-90	50-90	20-70	20-44	6-25
	17-80	Bedrock			0	---	---	---	---	---	---	---
Mountain Park---	0-4	Gravelly sandy loam	SC-SM, SM	A-2-4, A-4	0	0-7	73-100	63-100	38-70	19-40	11-19	1-6
	4-10	Gravelly sandy loam	SC-SM, SC	A-4, A-2-4	0	0-13	77-100	68-100	41-70	20-40	11-19	4-12
	10-23	Gravelly sandy clay loam, clay loam	CL	A-6	0	0-6	88-100	83-100	66-100	29-80	20-32	6-14
	23-32	Sandy loam, sandy clay loam	SC, CL	A-4	0	0-5	90-100	84-100	50-90	25-55	16-24	4-10
	32-46	Bedrock			0	---	---	---	---	---	---	---
	46-55	Sandy loam	SM, SC-SM	A-2-4, A-4	0	0	100	100	60-70	30-40	11-17	1-5
	55-80	Bedrock			0	---	---	---	---	---	---	---

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
LrD:												
Louisburg-------	0-8	Gravelly sandy loam, gravelly loamy sand	ML, SC-SM, SM	A-2, A-4, A-5	0-10	0-10	75-95	65-80	60-75	30-52	25-61	NP-7
	8-15	Gravelly sandy loam, gravelly loamy coarse sand, gravelly loamy sand	SM, SC-SM, ML, MH	A-2, A-4, A-5	0	0-10	75-95	65-80	60-75	30-52	25-61	NP-7
	15-21	Loam, sandy loam, coarse sandy loam, sandy clay loam	SM, ML	A-2, A-4, A-5	0	0	85-100	80-100	65-95	30-68	25-45	NP-10
	21-35	Loam, sandy loam, coarse sandy loam, sandy clay loam	SM, ML	A-2, A-4, A-5	0	0	85-100	80-100	65-95	30-68	25-45	NP-10
	35-64	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6
	64-80	Bedrock			0	---	---	---	---	---	---	---
Rion------------	0-5	Gravelly sandy loam, gravelly loamy sand	ML, SC-SM, SM	A-2, A-4, A-5	0-10	0-10	75-95	65-80	60-75	30-52	25-61	NP-7
	5-16	Sandy clay loam, clay loam, sandy loam	CL, SC, SC-SM	A-2, A-6	0-1	0-1	90-100	77-100	59-94	29-55	27-44	12-25
	16-32	Sandy clay loam, clay loam, sandy loam	SC-SM, CL, SC	A-2, A-6	0-1	0-1	90-100	77-100	59-94	29-55	27-44	12-25
	32-39	Clay loam, sandy clay loam	SM, ML, CL, SC	A-4, A-6	0	0	75-100	75-100	68-95	38-81	21-40	3-17
	39-80	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6
Rock Outcrop----	---	---	---	---	---	---	---	---	---	---	---	---

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
LrE:												
Louisburg-------	0-8	Gravelly sandy loam, gravelly loamy sand	ML, SM, SC-SM	A-2, A-4, A-5	0-10	0-10	75-95	65-80	60-75	30-52	25-61	NP-7
	8-15	Gravelly sandy loam, gravelly loamy coarse sand, gravelly loamy sand	SM, SC-SM, ML, MH	A-2, A-4, A-5	0	0-10	75-95	65-80	60-75	30-52	25-61	NP-7
	15-21	Loam, sandy loam, coarse sandy loam, sandy clay loam	SM, ML	A-2, A-4, A-5	0	0	85-100	80-100	65-95	30-68	25-45	NP-10
	21-35	Loam, sandy loam, coarse sandy loam, sandy clay loam	ML, SM	A-2, A-4, A-5	0	0	85-100	80-100	65-95	30-68	25-45	NP-10
	35-64	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6
	64-80	Bedrock			0	---	---	---	---	---	---	---
Rion------------	0-5	Gravelly sandy loam, gravelly loamy sand	ML, SC-SM, SM	A-2, A-4, A-5	0-10	0-10	75-95	65-80	60-75	30-52	25-61	NP-7
	5-16	Sandy clay loam, clay loam, sandy loam	SC, SC-SM, CL	A-2, A-6	0-1	0-1	90-100	77-100	59-94	29-55	27-44	12-25
	16-32	Sandy clay loam, clay loam, sandy loam	CL, SC, SC-SM	A-2, A-6	0-1	0-1	90-100	77-100	59-94	29-55	27-44	12-25
	32-39	Clay loam, sandy clay loam	CL, SM, SC, ML	A-4, A-6	0	0	75-100	75-100	68-95	38-81	21-40	3-17
	39-80	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6
Rock Outcrop----	---	---	---	---	---	---	---	---	---	---	---	---
MaB2:												
Madison---------	0-4	Fine sandy loam	ML, SM	A-2, A-4	0	0	85-100	80-100	60-90	26-55	0-35	NP-8
	4-10	Loam, sandy clay loam, clay loam	CL	A-4, A-6	0	0	90-100	85-100	70-95	50-80	20-40	7-20
	10-23	Clay, clay loam, sandy clay	SC, MH	A-7	0	0	90-100	85-100	75-100	40-85	25-75	12-35
	23-28	Clay loam, sandy clay loam, sandy loam	CL, SC, CL-ML, SC-SM	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-35	5-15
	28-40	Clay loam, sandy clay loam, sandy loam	CL-ML, SC, SC-SM, CL	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-35	5-15
	40-80	Fine sandy loam, sandy loam, loam	ML, SM, CL-ML	A-2, A-4	0	0	85-100	80-100	60-90	26-55	0-35	NP-7

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Rion------------	0-5	Gravelly sandy loam, gravelly loamy sand	ML, SM, SC-SM	A-2, A-4, A-5	0-10	0-10	75-95	65-80	60-75	30-52	25-61	NP-7
	5-16	Sandy clay loam, clay loam, sandy loam	SC-SM, CL, SC	A-2, A-6	0-1	0-1	90-100	77-100	59-94	29-55	27-44	12-25
	16-32	Sandy clay loam, clay loam, sandy loam	SC-SM, SC, CL	A-2, A-6	0-1	0-1	90-100	77-100	59-94	29-55	27-44	12-25
	32-39	Clay loam, sandy clay loam	ML, CL, SC, SM	A-4, A-6	0	0	75-100	75-100	68-95	38-81	21-40	3-17
	39-80	Sandy loam, fine sandy loam, loam	SM, SC-SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6
MaD2:												
Madison---------	0-4	Fine sandy loam	ML, SM	A-2, A-4	0	0	85-100	80-100	60-90	26-55	0-35	NP-8
	4-10	Loam, sandy clay loam, clay loam	CL	A-4, A-6	0	0	90-100	85-100	70-95	50-80	20-40	7-20
	10-23	Clay, clay loam, sandy clay	SC, MH	A-7	0	0	90-100	85-100	75-100	40-85	25-75	12-35
	23-28	Clay loam, sandy clay loam, sandy loam	SC-SM, SC, CL-ML, CL	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-35	5-15
	28-40	Clay loam, sandy clay loam, sandy loam	CL-ML, CL, SC-SM, SC	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-35	5-15
	40-80	Fine sandy loam, sandy loam, loam	SM, ML, CL-ML	A-2, A-4	0	0	85-100	80-100	60-90	26-55	0-35	NP-7
MdE2:												
Madison---------	0-4	Fine sandy loam	SM, ML	A-2, A-4	0	0	85-100	80-100	60-90	26-55	0-35	NP-8
	4-10	Loam, sandy clay loam, clay loam	CL	A-4, A-6	0	0	90-100	85-100	70-95	50-80	20-40	7-20
	10-23	Clay, clay loam, sandy clay	SC, MH	A-7	0	0	90-100	85-100	75-100	40-85	25-75	12-35
	23-28	Clay loam, sandy clay loam, sandy loam	SC-SM, SC, CL, CL-ML	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-35	5-15
	28-40	Clay loam, sandy clay loam, sandy loam	SC, CL-ML, SC-SM, CL	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-35	5-15
	40-80	Fine sandy loam, sandy loam, loam	SM, ML, CL-ML	A-2, A-4	0	0	85-100	80-100	60-90	26-55	0-35	NP-7

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Louisa----------	0-3	Sandy loam, fine sandy loam, loam	SM, SC-SM	A-2, A-4	0	0	84-100	80-100	67-90	26-42	15-30	NP-7
	3-10	Clay loam, sandy clay loam, loam, gravelly clay loam	CL, SC	A-6, A-2, A-4	0	0	70-95	60-90	50-90	20-70	20-44	6-25
	10-17	Clay loam, sandy clay loam, loam, gravelly clay loam	CL, SC	A-6, A-2, A-4	0	0	70-95	60-90	50-90	20-70	20-44	6-25
	17-80	Bedrock			0	---	---	---	---	---	---	---
MxD2: Mecklenburg-----	0-4	Gravelly loam, loam	SM	A-4	0	0	85-100	70-100	30-85	15-55	25-49	5-10
	4-15	Clay	CH, MH	A-7	0	0	90-100	85-100	80-100	75-95	51-75	20-43
	15-25	Clay	CH, MH	A-7	0	0	90-100	85-100	80-100	75-95	51-75	20-43
	25-33	Loam, sandy clay loam, clay loam	CL	A-7, A-4, A-6	0	0	90-100	85-100	80-100	50-80	25-49	8-25
	33-60	Loam, sandy clay loam, clay loam	CL	A-7, A-4, A-6	0	0	90-100	85-100	80-100	50-80	25-49	8-25
	60-80	Loam, sandy clay loam, clay loam	CL	A-7, A-4, A-6	0	0	90-100	85-100	80-100	50-80	25-49	8-25
PaC2: Pacolet---------	0-4	Gravelly sandy loam	SM	A-2, A-4	0	0	85-100	70-100	30-85	20-40	0-30	NP-3
	4-9	Clay loam, sandy clay loam, sandy loam	CL, SC-SM, SC, CL-ML	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-35	5-15
	9-25	Sandy clay, clay loam, clay	MH	A-6, A-7	0	0	80-100	80-100	60-95	51-75	38-65	11-30
	25-36	Sandy clay, clay loam, clay	MH	A-6, A-7	0	0	80-100	80-100	60-95	51-75	38-65	11-30
	36-56	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6
	56-80	Sandy loam, fine sandy loam, loam	SM, SC-SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
PrD2:												
Pacolet---------	0-4	Gravelly sandy loam	SM	A-2, A-4	0	0	85-100	70-100	30-85	20-40	0-30	NP-3
	4-9	Clay loam, sandy clay loam, sandy loam	CL, SC-SM, SC, CL-ML	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-35	5-15
	9-25	Sandy clay, clay loam, clay	MH	A-6, A-7	0	0	80-100	80-100	60-95	51-75	38-65	11-30
	25-36	Sandy clay, clay loam, clay	MH	A-6, A-7	0	0	80-100	80-100	60-95	51-75	38-65	11-30
	36-56	Sandy loam, fine sandy loam, loam	SM, SC-SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6
	56-80	Sandy loam, fine sandy loam, loam	SM, SC-SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6
Rion------------	0-5	Gravelly sandy loam, gravelly loamy sand	SC-SM, SM, ML	A-2, A-4, A-5	0-10	0-10	75-95	65-80	60-75	30-52	25-61	NP-7
	5-16	Sandy clay loam, clay loam, sandy loam	SC-SM, SC, CL	A-2, A-6	0-1	0-1	90-100	77-100	59-94	29-55	27-44	12-25
	16-32	Sandy clay loam, clay loam, sandy loam	CL, SC-SM, SC	A-2, A-6	0-1	0-1	90-100	77-100	59-94	29-55	27-44	12-25
	32-39	Clay loam, sandy clay loam	CL, ML, SC, SM	A-4, A-6	0	0	75-100	75-100	68-95	38-81	21-40	3-17
	39-80	Sandy loam, fine sandy loam, loam	SM, SC-SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6
PrE2:												
Pacolet---------	0-4	Gravelly sandy loam	SM	A-2, A-4	0	0	85-100	70-100	30-85	20-40	0-30	NP-3
	4-9	Clay loam, sandy clay loam, sandy loam	CL, CL-ML, SC-SM, SC	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-35	5-15
	9-25	Sandy clay, clay loam, clay	MH	A-6, A-7	0	0	80-100	80-100	60-95	51-75	38-65	11-30
	25-36	Sandy clay, clay loam, clay	MH	A-6, A-7	0	0	80-100	80-100	60-95	51-75	38-65	11-30
	36-56	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6
	56-80	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
Rion------------	0-5	Gravelly sandy loam, gravelly loamy sand	ML, SC-SM, SM	A-2, A-4, A-5	0-10	0-10	75-95	65-80	60-75	30-52	25-61	NP-7
	5-16	Sandy clay loam, clay loam, sandy loam	SC-SM, SC, CL	A-2, A-6	0-1	0-1	90-100	77-100	59-94	29-55	27-44	12-25
	16-32	Sandy clay loam, clay loam, sandy loam	CL, SC, SC-SM	A-2, A-6	0-1	0-1	90-100	77-100	59-94	29-55	27-44	12-25
	32-39	Clay loam, sandy clay loam	SM, SC, ML, CL	A-4, A-6	0	0	75-100	75-100	68-95	38-81	21-40	3-17
	39-80	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2-4, A-4	0	0	80-100	70-100	60-80	30-50	0-28	NP-6
ShA:												
Shellbluff------	0-8	Loam	CL, ML, CL-ML	A-4, A-6	0	0	98-100	95-100	90-100	75-95	15-40	NP-14
	8-23	Silty clay loam, silt loam, loam	CL, CL-ML	A-4, A-6, A-7-6	0	0	98-100	95-100	70-100	70-95	20-41	4-22
	23-38	Silty clay loam, silt loam, loam	CL, CL-ML	A-4, A-6, A-7-6	0	0	98-100	95-100	70-100	70-95	20-41	4-22
	38-48	Silty clay loam, silt loam, loam	CL-ML, CL	A-4, A-6, A-7-6	0	0	98-100	95-100	70-100	70-95	20-41	4-22
	48-80	Loam, fine sandy loam, sandy loam	ML, SM, SC-SM	A-4	0	0	95-100	90-100	60-99	35-75	20-30	NP-7
SpB:												
Springhill------	0-6	Sandy loam	SM	A-2, A-4	0	0	98-100	95-100	75-85	30-40	0-14	NP
	6-19	Sandy loam, sandy clay loam	SC, CL, SC-SM	A-4, A-6	0	0	98-100	95-100	70-96	40-65	22-46	8-21
	19-50	Sandy loam, sandy clay loam	SC, SC-SM, CL	A-4, A-6	0	0	98-100	95-100	70-96	40-65	22-46	8-21
	50-80	Loamy sand, sandy loam	SC-SM, SM	A-2, A-4	0	0	98-100	95-100	70-96	15-45	0-30	3-16
SwF:												
Sweetapple------	0-6	Gravelly loamy coarse sand, gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2	0	0-15	80-100	75-95	50-70	20-30	0-14	NP
	6-12	Gravelly loamy coarse sand, gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2	0	0-15	80-100	75-95	50-70	20-30	0-14	NP
	12-23	Gravelly loamy coarse sand, gravelly fine sandy loam, sandy loam, gravelly sandy loam	SM	A-2	0	0-15	80-100	75-95	50-70	20-30	0-14	NP
	23-80	Bedrock			0	---	---	---	---	---	0-14	---

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas- ticity index
	In				Pct	Pct					Pct	
Mountain Park---	0-4	Gravelly sandy loam	SC-SM, SM	A-2-4, A-4	0	0-7	73-100	63-100	38-70	19-40	11-19	1-6
	4-10	Gravelly sandy loam	SC, SC-SM	A-4, A-2-4	0	0-13	77-100	68-100	41-70	20-40	11-19	4-12
	10-23	Gravelly sandy clay loam, clay loam	CL	A-6	0	0-6	88-100	83-100	66-100	29-80	20-32	6-14
	23-32	Sandy loam, sandy clay loam	CL, SC	A-6, A-4	0	0-5	90-100	84-100	50-90	25-55	16-40	4-11
	32-46	Bedrock			0	0	---	---	---	---	---	NP
	46-55	Sandy loam	SM, SC-SM	A-2-4, A-4	0	0	100	100	60-70	30-40	11-17	1-5
	55-80	Bedrock			0	0	---	---	---	---	---	NP
TaD2:												
Tallapoosa------	0-4	Gravelly loam	CL-ML, SM, GM	A-2-4, A-4	0	0	70-85	65-75	45-65	30-50	25-40	5-10
	4-8	Gravelly loam	SM, GM, CL-ML	A-2-4, A-4	0	0	70-85	65-75	45-65	30-50	25-40	5-10
	8-12	Loam, clay loam	ML, CL	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	12-16	Loam, clay loam	ML, CL	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	16-80	Bedrock			0	---	---	---	---	---	---	---
Badin-----------	0-5	Loam	ML, CL-ML, CL	A-4, A-6	0	0	85-100	75-95	65-90	60-85	25-45	5-15
	5-14	Silty clay, silty clay loam, clay	CH, CL	A-7	0	0	65-100	60-100	55-100	50-98	45-60	15-35
	14-20	Silty clay, silty clay loam, clay	CL, CH	A-7	0	0	65-100	60-100	55-100	50-98	45-60	15-35
	20-28	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	28-80	Bedrock			0	---	---	---	---	---	---	---
Fruithurst------	0-3	Gravelly loam	SC-SM, SM, CL-ML, ML	A-4	0	0-5	70-85	65-75	45-65	30-50	0-34	NP-7
	3-7	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	7-21	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	21-30	Silt loam	CL-ML, ML, CL	A-4, A-6	0	0	95-100	90-100	70-100	60-90	22-35	2-12
	30-80	Bedrock			0	---	---	---	---	---	---	---
TfE2:												
Tallapoosa------	0-4	Gravelly loam	CL-ML, GM, SM	A-2-4, A-4	0	0	70-85	65-75	45-65	30-50	25-40	5-10
	4-8	Gravelly loam	SM, CL-ML, GM	A-2-4, A-4	0	0	70-85	65-75	45-65	30-50	25-40	5-10
	8-12	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	12-16	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	16-80	Bedrock			0	---	---	---	---	---	---	---
Fruithurst------	0-3	Gravelly loam	SC-SM, SM, ML, CL-ML	A-4	0	0-5	70-85	65-75	45-65	30-50	0-34	NP-7
	3-7	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	7-21	Loam, clay loam	CL, ML	A-6, A-7	0	0	80-100	80-100	65-95	55-80	35-50	10-25
	21-30	Silt loam	ML, CL-ML, CL	A-4, A-6	0	0	95-100	90-100	70-100	60-90	22-35	2-12
	30-80	Bedrock			0	---	---	---	---	---	---	---

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
ToA:												
Toccoa----------	0-4	Fine sandy loam	ML, SM	A-2, A-4	0	0	95-100	95-100	50-85	30-55	0-30	NP-4
	4-28	Sandy loam, loam	ML, SM	A-2, A-4	0	0	95-100	90-100	60-100	30-55	0-30	NP-4
	28-36	Sandy loam, loam	ML, SM	A-2, A-4	0	0	95-100	90-100	60-100	30-55	0-30	NP-4
	36-43	Fine sandy loam, loam, silt loam, sandy loam	SC-SM, ML	A-4	0	0	95-100	90-100	55-100	30-90	18-27	2-9
	43-80	Sandy loam, loam	SM, ML	A-2, A-4	0	0	95-100	90-100	60-100	30-55	0-30	NP-4
TwD:												
Townley---------	0-4	Gravelly fine sandy loam, gravelly loam	SM, CL-ML, ML, SC-SM	A-4	0	0	70-95	50-77	45-75	40-70	15-30	NP-7
	4-8	Fine sandy loam	CL-ML, ML, SM	A-2, A-4	0	0-2	80-98	70-95	65-85	30-65	0-30	NP-7
	8-22	Channery clay, silty clay, clay	CH, CL, MH, ML	A-7	0	0-2	75-95	65-95	60-92	55-90	40-72	14-37
	22-26	Channery silty clay loam	CL, ML, CH, MH	A-6, A-7	0	0-2	65-85	60-80	55-80	50-70	37-65	13-35
	26-80	Bedrock			0	---	---	---	---	---	---	---
TxE:												
Townley---------	0-4	Gravelly fine sandy loam, gravelly loam	CL-ML, ML, SC-SM, SM	A-4	0	0	70-95	50-77	45-75	40-70	15-30	NP-7
	4-8	Fine sandy loam	SM, CL-ML, ML	A-2, A-4	0	0-2	80-98	70-95	65-85	30-65	0-30	NP-7
	8-22	Channery clay, silty clay, clay	MH, CH, ML, CL	A-7	0	0-2	75-95	65-95	60-92	55-90	40-72	14-37
	22-26	Channery silty clay loam	CH, CL, MH, ML	A-6, A-7	0	0-2	65-85	60-80	55-80	50-70	37-65	13-35
	26-80	Bedrock			0	---	---	---	---	---	---	---
Montevallo------	0-4	Gravelly sandy loam	SC-SM, SM	A-2	0	0-2	75-90	60-75	45-70	15-25	0-26	NP-10
	4-8	Very gravelly sandy loam	SC-SM, SM	A-2	0	0-2	75-90	60-75	45-70	15-25	0-26	NP-10
	8-19	Extremely channery silt loam, extremely channery silty clay loam, channery loam	GC, GC-GM	A-1-b, A-2, A-4, A-6	0	0-2	40-65	35-60	35-50	20-40	20-40	4-15
	19-80	Channers			0	---	---	---	---	---	---	---

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plas-ticity index
	In				Pct	Pct					Pct	
WeC2:												
Wedowee---------	0-2	Gravelly sandy loam	SM, SC-SM	A-2-4, A-4	0	0-16	85-100	70-100	30-85	15-55	0-30	NP-6
	2-5	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2, A-4	0	0	84-100	80-100	67-90	26-42	15-30	NP-7
	5-15	Sandy clay, clay loam, clay	CL, MH, ML, SC	A-6, A-7	0	0	95-100	95-100	65-97	45-75	28-58	5-30
	15-28	Sandy clay, clay loam, clay	CL, SC, ML, MH	A-6, A-7	0	0	95-100	95-100	65-97	45-75	28-58	5-30
	28-34	Loam, sandy clay loam	SC, CL, ML, SM	A-4, A-6	0	0	90-100	90-100	80-97	40-75	0-32	NP-15
	34-80	Sandy clay loam, sandy loam	SC-SM, SC, CL, CL-ML	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-54	5-25
WeD2:												
Wedowee---------	0-2	Gravelly sandy loam	SM, SC-SM	A-2-4, A-4	0	0-16	85-100	70-100	30-85	15-55	0-30	NP-6
	2-5	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2, A-4	0	0	84-100	80-100	67-90	26-42	15-30	NP-7
	5-15	Sandy clay, clay loam, clay	CL, SC, ML, MH	A-6, A-7	0	0	95-100	95-100	65-97	45-75	28-58	5-30
	15-28	Sandy clay, clay loam, clay	SC, ML, MH, CL	A-6, A-7	0	0	95-100	95-100	65-97	45-75	28-58	5-30
	28-34	Loam, sandy clay loam	CL, ML, SC, SM	A-4, A-6	0	0	90-100	90-100	80-97	40-75	0-32	NP-15
	34-80	Sandy clay loam, sandy loam	CL-ML, CL, SC, SC-SM	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-54	5-25
WfE:												
Wedowee---------	0-2	Gravelly sandy loam	SC-SM, SM	A-2-4, A-4	0	0-16	85-100	70-100	30-85	15-55	0-30	NP-6
	2-5	Sandy loam, fine sandy loam, loam	SC-SM, SM	A-2, A-4	0	0	84-100	80-100	67-90	26-42	15-30	NP-7
	5-15	Sandy clay, clay loam, clay	CL, MH, ML, SC	A-6, A-7	0	0	95-100	95-100	65-97	45-75	28-58	5-30
	15-28	Sandy clay, clay loam, clay	SC, ML, MH, CL	A-6, A-7	0	0	95-100	95-100	65-97	45-75	28-58	5-30
	28-34	Loam, sandy clay loam	CL, SM, ML, SC	A-4, A-6	0	0	90-100	90-100	80-97	40-75	0-32	NP-15
	34-80	Sandy clay loam, sandy loam	SC-SM, CL-ML, CL, SC	A-2, A-4, A-6	0	0	80-100	70-100	60-80	30-60	20-54	5-25

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	Percentage passing sieve number--: 10	Percentage passing sieve number--: 40	Percentage passing sieve number--: 200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
WhA:												
Wehadkee--------	0-4	Silt loam	ML, CL, CL-ML	A-4, A-6	0	0	95-100	90-100	70-100	60-90	22-35	2-12
	4-20	Loam, silt loam, silty clay loam, sandy clay loam	CL, CL-ML, ML	A-4, A-6	0	0	85-100	80-100	70-95	55-85	22-35	2-12
	20-40	Loam, sandy clay loam, sandy loam, silt loam	SC, ML, SM, CL	A-4	0	0	75-100	70-100	60-90	45-60	22-30	2-10
	40-80	Sandy clay loam, sandy loam, silt loam	CL, ML, SC, SM	A-4	0	0	75-100	70-100	60-90	45-60	22-30	2-10
WkB:												
Wickham---------	0-10	Sandy loam	SC-SM, SM, CL-ML, ML	A-4	0	0	95-100	90-100	70-100	45-80	0-25	NP-7
	10-20	Sandy clay loam, clay loam, loam	CL, SM, CL-ML, SC	A-6, A-7-6, A-2, A-4	0	0	95-100	90-100	75-100	30-70	20-41	3-15
	20-43	Sandy clay loam, clay loam, loam	CL, CL-ML, SC, SM	A-6, A-7-6, A-2, A-4	0	0	95-100	90-100	75-100	30-70	20-41	3-15
	43-58	Sandy clay loam, sandy loam	CL-ML, CL, SC, SM	A-2, A-4, A-6, A-7-6	0	0	95-100	90-100	75-100	30-70	20-41	3-15
	58-74	Fine sandy loam	SM, ML	A-2, A-4	0	0	95-100	95-100	50-85	30-55	0-30	NP-4
	74-80	Loamy sand, loamy fine sand, sand	SP-SM, SM	A-2, A-3	0	0	98-100	98-100	98-100	7-32	0-14	NP
WnE:												
Wynott----------	0-8	Gravelly sandy loam	CL, CL-ML, ML, SM	A-4	0	0-10	80-100	50-75	40-70	35-65	20-34	2-10
	8-12	Gravelly sandy loam	SM, ML, CL-ML, CL	A-4	0	0-10	80-100	50-75	40-70	35-65	20-34	2-10
	12-23	Clay, clay loam, silty clay	CL, CH	A-7	0	0	85-100	85-100	80-100	65-95	40-90	25-65
	23-32	Clay, clay loam, silty clay	CL, CH	A-7	0	0	85-100	85-100	80-100	65-95	40-90	25-65
	32-38	Sandy clay, sandy clay loam, clay loam	CL, SC	A-6	0	0	85-100	85-100	70-95	35-85	25-50	7-25
	38-80	Bedrock			0	---	---	---	---	---	---	---
Wilkes----------	0-4	Gravelly sandy loam	SC-SM, SM	A-1-b, A-2, A-4	0	0	70-80	60-75	45-75	20-49	15-20	NP-7
	4-9	Gravelly sandy loam	SM, SC-SM	A-1-b, A-2, A-4	0	0	70-80	60-75	45-75	20-49	15-20	NP-7
	9-15	Clay loam, clay, sandy clay loam	CL, CH	A-6, A-7	0	0-10	80-100	80-100	75-96	50-85	30-60	11-35
	15-80	Bedrock			0	---	---	---	---	---	---	---

Table 16.—Engineering Properties—Continued

Map symbol and soil name	Depth	USDA texture	Classification: Unified	Classification: AASHTO	Fragments: >10 inches	Fragments: 3-10 inches	Percentage passing sieve number--: 4	10	40	200	Liquid limit	Plasticity index
	In				Pct	Pct					Pct	
WyD:												
Wynott----------	0-8	Gravelly sandy loam	CL, CL-ML, ML, SM	A-4	0	0-10	80-100	50-75	40-70	35-65	20-34	2-10
	8-12	Gravelly sandy loam	CL-ML, ML, CL, SM	A-4	0	0-10	80-100	50-75	40-70	35-65	20-34	2-10
	12-23	Clay, clay loam, silty clay	CH, CL	A-7	0	0	85-100	85-100	80-100	65-95	40-90	25-65
	23-32	Clay, clay loam, silty clay	CH, CL	A-7	0	0	85-100	85-100	80-100	65-95	40-90	25-65
	32-38	Sandy clay, sandy clay loam, clay loam	CL, SC	A-6	0	0	85-100	85-100	70-95	35-85	25-50	7-25
	38-80	Bedrock			0	---	---	---	---	---	---	---
Winnsboro-------	0-6	Very gravelly sandy loam	SM, SC-SM	A-2-4	0	0-10	70-80	60-75	25-40	5-30	0-20	NP-7
	6-12	Gravelly sandy clay loam, gravelly sandy loam	SC, CL	A-4, A-6	0	0	80-100	50-75	40-70	35-65	20-34	8-14
	12-32	Clay, clay loam, silty clay	CL, CH	A-7	0	0	85-100	85-100	80-100	65-95	40-90	25-65
	32-40	Sandy clay, sandy clay loam, clay loam	SC, CL	A-6	0	0	85-100	85-100	70-95	35-85	25-50	7-25
	40-56	Sandy clay, sandy clay loam, clay loam	CL, SC	A-6	0	0	85-100	85-100	70-95	35-85	25-50	7-25
	56-80	Bedrock			0	---	---	---	---	---	---	---

Table 17.—Physical Soil Properties

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer. Absence of an entry indicates that data were not estimated.)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
AcB:														
Alcovy----------------	0-6	55-74	19-23	7-18	1.40-1.60	9.50-28.00	0.12-0.16	0.0-2.9	0.5-1.0	.32	.32	4	3	86
	6-21	54-64	13-16	20-35	1.40-1.60	7.50-9.00	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	21-28	54-64	13-16	20-35	1.40-1.60	7.50-9.00	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	28-36	36-44	27-34	28-35	1.60-1.75	7.50-9.00	0.06-0.08	0.0-2.9	0.0-0.5	.37	.37			
	36-55	44-54	22-30	20-28	1.60-1.75	1.00-2.60	0.06-0.08	0.0-2.9	0.0-0.5	.37	.37			
	55-80	40-60	8-25	20-45	1.25-1.45	0.42-1.40	0.12-0.16	0.0-2.9	0.0-0.5	.28	.28			
AlC2:														
Allen-----------------	0-3	65-74	14-17	9-25	1.30-1.50	14.00-42.00	0.12-0.17	0.0-2.9	0.5-3.0	.24	.28	5	3	86
	3-7	57-65	12-15	21-35	1.40-1.60	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.20	.20			
	7-18	57-65	12-15	23-35	1.40-1.60	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.20	.20			
	18-36	57-65	12-15	23-35	1.40-1.60	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.20	.20			
	36-80	30-42	25-40	26-35	1.40-1.60	4.00-14.00	0.12-0.17	0.0-2.9	0.0-0.5	.20	.20			
AtB:														
Altavista-------------	0-7	50-65	25-35	5-15	1.30-1.50	14.00-42.00	0.12-0.20	0.0-2.9	0.5-3.0	.24	.24	5	3	86
	7-11	50-65	16-35	10-35	1.30-1.50	4.00-42.00	0.12-0.20	0.0-2.9	0.0-0.5	.24	.24			
	11-27	26-50	25-43	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.0-0.5	.24	.24			
	27-40	26-50	25-43	18-35	1.30-1.50	4.00-14.00	0.12-0.20	0.0-2.9	0.0-0.5	.24	.24			
	40-52	50-65	16-30	10-35	1.30-1.50	4.00-42.00	0.12-0.20	0.0-2.9	0.0-0.5	.24	.24			
	52-80	50-75	8-30	10-35	1.30-1.50	4.00-42.00	0.12-0.20	0.0-2.9	0.0-0.5	.24	.24			
BdB2:														
Badin-----------------	0-5	35-45	35-45	10-27	1.20-1.45	4.00-14.00	0.16-0.20	0.0-2.9	1.0-3.0	.37	.37	3	5	56
	5-14	16-30	26-45	35-55	1.30-1.50	0.42-1.40	0.14-0.19	3.0-5.9	0.0-0.5	.24	.28			
	14-20	16-30	26-45	35-55	1.30-1.50	0.42-1.40	0.14-0.19	3.0-5.9	0.0-0.5	.24	.28			
	20-28	27-35	35-42	18-34	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	28-80	---	---	---	---	---	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
Tatum-----------------	0-5	36-46	32-43	12-27	1.10-1.40	4.00-14.00	0.10-0.17	0.0-2.9	0.5-2.0	.20	.37	4	3	86
	5-10	36-46	32-43	12-27	1.10-1.40	4.00-14.00	0.10-0.17	0.0-2.9	0.2-1.0	.20	.37			
	10-15	5-15	35-52	30-60	1.40-1.60	4.00-14.00	0.10-0.19	3.0-5.9	0.0-0.5	.28	.28			
	15-31	17-30	20-42	35-60	1.20-1.50	0.42-1.40	0.15-0.17	3.0-5.9	0.0-0.5	.28	.28			
	31-42	5-15	35-52	30-60	1.40-1.60	4.00-14.00	0.10-0.19	3.0-5.9	0.0-0.5	.28	.28			
	42-80	---	---	---	---	0.01-0.42	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
Tallapoosa------------	0-4	39-45	36-42	7-25	1.30-1.60	4.00-14.00	0.11-0.20	0.0-2.9	0.5-2.0	.24	.28	2	8	86
	4-8	39-45	36-42	7-25	1.30-1.60	4.00-14.00	0.11-0.20	0.0-2.9	0.2-1.0	.24	.28			
	8-12	28-33	37-43	18-34	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	12-16	28-33	37-43	18-34	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	16-80	---	---	---	---	0.01-0.42	0.00-0.00	0.0-0.0	0.0-0.0	---	---			

Table 17.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
BfC:														
Badin-----------------	0-5	35-45	35-45	10-27	1.20-1.45	4.00-14.00	0.16-0.20	0.0-2.9	1.0-3.0	.37	.37	3	5	56
	5-14	15-30	26-50	35-55	1.30-1.50	0.42-1.40	0.14-0.19	3.0-5.9	0.0-0.5	.24	.28			
	14-20	15-30	26-50	35-55	1.30-1.50	0.42-1.40	0.14-0.19	3.0-5.9	0.0-0.5	.24	.28			
	20-28	27-35	35-42	18-34	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	28-80	---	---	---	---	0.00-3.00	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
Tallapoosa-----------	0-4	39-45	36-42	7-25	1.30-1.60	4.00-14.00	0.11-0.20	0.0-2.9	0.5-2.0	.24	.28	2	8	86
	4-8	39-45	36-42	7-25	1.30-1.60	4.00-14.00	0.11-0.20	0.0-2.9	0.2-1.0	.24	.28			
	8-12	28-33	37-43	18-34	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	12-16	28-33	37-43	18-34	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	16-80	---	---	---	---	0.01-0.42	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
Fruithurst-----------	0-3	40-50	38-48	7-17	1.35-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.5-2.0	.24	.28	3	3	86
	3-7	33-43	33-43	18-35	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	7-21	25-35	35-45	18-35	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	21-30	26-32	52-70	10-20	1.20-1.40	4.23-14.11	0.16-0.22	0.0-2.9	0.0-0.5	.37	.37			
	30-80	---	---	---	---	0.01-0.42	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
BmD2:														
Bethlehem------------	0-4	50-67	17-35	7-20	1.40-1.65	14.00-42.00	0.06-0.10	0.0-2.9	1.0-3.0	.15	.28	3	3	86
	4-12	20-25	25-32	35-60	1.25-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28	.32			
	12-24	20-25	25-32	35-60	1.25-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28	.32			
	24-30	20-25	25-32	35-60	1.25-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28	.32			
	30-80	---	---	---	---	0.00-0.01	0.00-0.00	---	0.0-0.0	---	---			
Madison--------------	0-4	61-71	15-25	5-20	1.45-1.65	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.24	.24	4	5	56
	4-10	40-60	15-35	25-35	1.30-1.40	4.00-14.00	0.12-0.16	0.0-2.9	0.0-0.5	.28	.32			
	10-23	24-50	15-34	30-50	1.20-1.40	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.32	.32			
	23-28	40-60	15-23	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	28-40	40-60	15-23	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	40-80	45-75	12-35	5-20	1.30-1.50	4.00-14.00	0.10-0.14	0.0-2.9	0.0-0.2	.37	.32			
CeB2:														
Cecil----------------	0-4	40-69	17-30	10-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.0	.24	.24	4	3	86
	4-12	35-50	27-33	20-50	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	12-39	26-33	18-24	35-60	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	39-50	37-50	21-27	20-40	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	50-64	37-50	21-27	20-40	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	64-80	40-67	15-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			

Table 17.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
CeC2:														
Cecil----------------	0-4	40-69	17-30	10-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.0	.24	.24	4	3	86
	4-12	35-50	27-33	20-50	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	12-39	26-33	18-24	35-60	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	39-50	37-50	21-27	20-40	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	50-64	37-50	21-27	20-40	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	64-80	40-67	15-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
ChA:														
Chewacla-------------	0-2	13-25	52-57	18-35	1.30-1.50	4.00-14.00	0.15-0.24	0.0-2.9	1.0-4.0	.32	.32	5	3	86
	2-6	13-25	52-57	18-35	1.30-1.50	4.00-14.00	0.15-0.24	0.0-2.9	1.0-3.0	.32	.32			
	6-20	12-25	40-58	18-35	1.30-1.50	4.00-14.00	0.15-0.24	0.0-2.9	0.5-1.8	.32	.32			
	20-27	42-47	18-43	12-20	1.30-1.60	4.00-14.00	0.12-0.20	0.0-2.9	1.0-4.0	.28	.28			
	27-53	18-27	43-60	18-35	1.30-1.50	4.00-14.00	0.15-0.24	0.0-2.9	0.5-2.0	.32	.32			
	53-80	16-21	52-57	18-35	1.30-1.50	4.00-14.00	0.15-0.24	0.0-2.9	0.3-2.0	.32	.32			
Cartecay-------------	0-3	36-52	38-45	10-27	1.20-1.40	4.00-14.00	0.15-0.20	0.0-2.9	0.5-3.0	.28	.28	5	3	86
	3-13	40-69	18-35	8-18	1.30-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24			
	13-18	40-69	18-35	8-18	1.30-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24			
	18-32	45-69	18-35	8-18	1.30-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-2.0	.24	.24			
	32-47	68-72	14-20	8-18	1.30-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-1.2	.32	.32			
	47-80	73-90	8-18	2-16	1.30-1.55	42.00-141.00	0.06-0.09	0.0-2.9	0.5-2.0	.15	.20			
Toccoa---------------	0-4	66-72	18-24	2-15	1.40-1.55	14.00-42.00	0.09-0.12	0.0-2.9	1.0-2.0	.10	.10	4	3	86
	4-28	40-69	20-35	2-19	1.40-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-1.0	.20	.20			
	28-36	40-69	20-35	2-19	1.40-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-1.0	.20	.20			
	36-43	29-60	30-58	7-17	1.35-1.45	14.00-42.00	0.09-0.20	0.0-2.9	1.0-2.0	.24	.24			
	43-80	40-69	20-35	2-19	1.40-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-1.0	.20	.20			
DaB:														
Davidson-------------	0-5	30-45	17-30	28-40	1.30-1.55	4.00-14.00	0.14-0.18	0.0-2.9	0.5-2.0	.28	.28	5	6	48
	5-30	27-40	18-30	42-57	1.20-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.32	.32			
	30-80	27-40	18-30	42-57	1.20-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.32	.32			
DAM:														
Dam------------------	---	---	---	---	---	---	---	---	---	---	---	--	8	0
DdD3:														
Davidson-------------	0-5	30-45	17-30	28-40	1.30-1.55	4.00-14.00	0.14-0.18	0.0-2.9	0.5-2.0	.28	.28	5	6	48
	5-30	27-40	18-30	42-57	1.20-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.32	.32			
	30-80	27-40	18-30	42-57	1.20-1.50	4.00-14.00	0.15-0.18	0.0-2.9	0.0-0.5	.32	.32			

Table 17.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
DeB:														
Decatur---------------	0-6	15-35	50-68	15-27	1.25-1.55	4.00-14.00	0.18-0.20	0.0-2.9	0.5-2.0	.32	.32	5	6	48
	6-11	5-10	30-55	35-60	1.20-1.55	4.00-14.00	0.14-0.17	3.0-5.9	0.5-1.0	.28	.28			
	11-60	5-10	30-55	35-60	1.20-1.55	4.00-14.00	0.14-0.17	3.0-5.9	0.5-1.0	.28	.28			
	60-80	24-30	34-40	35-40	1.20-1.50	4.00-14.00	0.12-0.16	3.0-5.9	0.0-0.2	.24	.24			
EnB:														
Enon------------------	0-4	60-70	16-25	7-20	1.20-1.40	4.00-14.00	0.14-0.17	0.0-2.9	0.5-2.0	.17	.24	4	6	48
	4-12	48-60	15-35	15-35	1.30-1.60	1.40-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.28	.28			
	12-25	18-27	24-32	40-60	1.20-1.45	0.42-1.40	0.16-0.22	6.0-8.9	0.0-0.5	.20	.20			
	25-50	18-27	24-32	40-60	1.20-1.45	0.42-1.40	0.16-0.22	6.0-8.9	0.0-0.5	.20	.20			
	50-80	33-50	18-39	15-35	1.30-1.60	0.42-1.40	0.14-0.18	6.0-8.9	0.0-0.5	.28	.28			
Wynott----------------	0-8	60-70	13-23	7-27	1.20-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.5-2.0	.32	.37	3	5	56
	8-12	60-70	13-23	7-27	1.20-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.2-1.0	.32	.37			
	12-23	17-27	22-45	35-65	1.20-1.50	0.42-1.40	0.15-0.17	6.0-8.9	0.0-0.5	.28	.28			
	23-32	17-27	22-45	35-65	1.20-1.50	0.42-1.40	0.15-0.17	6.0-8.9	0.0-0.5	.28	.28			
	32-38	34-50	15-35	20-45	1.30-1.50	1.40-4.00	0.15-0.20	0.0-2.9	0.0-0.5	.28	.28			
	38-80	---	---	---	---	0.00-14.00	0.00-0.01	0.0-0.0	0.0-0.0	---	---			
GrD:														
Grover----------------	0-5	43-50	37-45	13-24	1.45-1.60	14.00-42.00	0.10-0.12	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	5-23	43-50	23-28	28-34	1.45-1.60	4.00-14.00	0.10-0.12	0.0-2.9	0.0-0.5	.24	.24			
	23-34	35-45	30-40	18-35	1.40-1.60	4.00-14.00	0.12-0.14	0.0-2.9	0.0-0.5	.32	.32			
	34-50	57-65	23-29	10-28	1.45-1.60	4.00-14.00	0.10-0.12	0.0-2.9	0.0-0.5	.24	.24			
	50-80	57-65	23-29	10-28	1.45-1.60	4.00-14.00	0.10-0.12	0.0-2.9	0.0-0.5	.24	.24			
HdB:														
Hard Labor------------	0-2	75-82	7-15	5-20	1.40-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.5	.24	.24	4	3	86
	2-9	75-82	7-15	5-20	1.40-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.5	.24	.24			
	9-15	75-82	7-15	5-20	1.40-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.2-1.0	.24	.24			
	15-45	30-50	10-20	35-60	1.25-1.45	1.40-4.00	0.15-0.17	0.0-2.9	0.0-0.5	.28	.28			
	45-52	40-60	8-25	20-45	1.25-1.45	0.42-1.40	0.12-0.16	0.0-2.9	0.0-0.5	.28	.28			
	52-80	40-60	8-25	20-45	1.25-1.45	0.42-1.40	0.12-0.16	0.0-2.9	0.0-0.5	.28	.28			
HdC:														
Hard Labor------------	0-2	75-82	7-15	5-20	1.40-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.5	.24	.24	4	3	86
	2-9	75-82	7-15	5-20	1.40-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.5-1.5	.24	.24			
	9-15	75-82	7-15	5-20	1.40-1.65	14.00-42.00	0.10-0.15	0.0-2.9	0.2-1.0	.24	.24			
	15-45	30-50	10-20	35-60	1.25-1.45	1.40-4.00	0.15-0.17	0.0-2.9	0.0-0.5	.28	.28			
	45-52	40-60	8-25	20-45	1.25-1.45	0.42-1.40	0.12-0.16	0.0-2.9	0.0-0.5	.28	.28			
	52-80	40-60	8-25	20-45	1.25-1.45	0.42-1.40	0.12-0.16	0.0-2.9	0.0-0.5	.28	.28			

Table 17.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
LcB:														
Locust---------------	0-6	67-73	15-17	7-20	1.40-1.60	4.00-14.00	0.12-0.16	0.0-2.9	0.5-1.0	.32	.32	4	3	86
	6-12	50-60	22-35	17-19	1.40-1.60	4.00-14.00	0.13-0.17	0.0-2.9	0.0-0.5	.37	.37			
	12-24	50-60	17-18	18-35	1.60-1.75	4.00-14.00	0.06-0.08	0.0-2.9	0.0-0.5	.37	.37			
	24-30	50-60	17-18	18-35	1.60-1.75	4.00-14.00	0.06-0.08	0.0-2.9	0.0-0.5	.37	.37			
	30-62	48-54	26-33	18-28	1.60-1.75	0.45-1.40	0.06-0.08	0.0-2.9	0.0-0.5	.37	.37			
	62-80	27-42	27-45	10-38	1.35-1.50	1.00-9.00	0.03-0.05	0.0-2.9	0.0-0.5	.28	.37			
LoF:														
Louisa---------------	0-3	40-69	17-40	10-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.0	.24	.24	2	3	86
	3-10	35-50	20-43	10-35	1.35-1.55	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.24	.28			
	10-17	40-60	18-32	10-35	1.35-1.55	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.24	.28			
	17-80	---	---	---	---	0.01-0.42	---	0.0-0.0	0.0-0.0	---	---			
Mountain Park--------	0-4	60-70	15-25	8-19	1.50-1.60	4.00-14.00	0.08-0.12	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	4-10	60-70	15-25	8-19	1.50-1.60	4.00-14.00	0.08-0.12	0.0-2.9	0.0-0.5	.24	.24			
	10-23	45-63	9-19	20-36	1.40-1.55	4.00-14.00	0.12-0.14	0.0-2.9	0.0-0.5	.32	.32			
	23-32	55-70	17-27	15-25	1.45-1.60	4.00-14.00	0.11-0.13	0.0-2.9	0.0-0.5	.32	.32			
	32-46	---	---	---	---	0.01-0.42	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
	46-55	62-74	13-27	8-16	1.50-1.60	4.00-14.00	0.09-0.11	0.0-2.9	0.0-0.5	.32	.32			
	55-80	---	---	---	---	0.01-0.42	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
LrD:														
Louisburg------------	0-8	62-78	14-24	5-18	1.40-1.60	14.00-42.00	0.08-0.13	0.0-2.9	1.0-3.0	.17	.20	4	3	86
	8-15	60-75	18-28	5-18	1.40-1.60	14.00-42.00	0.08-0.13	0.0-2.9	0.2-0.8	.17	.24			
	15-21	45-72	21-31	7-20	1.40-1.60	14.00-42.00	0.10-0.16	0.0-2.9	0.0-0.5	.24	.24			
	21-35	45-72	21-31	7-20	1.40-1.60	14.00-42.00	0.10-0.16	0.0-2.9	0.0-0.5	.24	.24			
	35-64	45-75	13-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	64-80	---	---	---	---	1.40-4.00	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
Rion-----------------	0-5	65-75	14-24	5-18	1.40-1.60	14.00-42.00	0.08-0.13	0.0-2.9	1.0-3.0	.17	.20	5	3	86
	5-16	40-70	8-18	18-34	1.40-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.20	.24			
	16-32	40-70	8-18	18-34	1.40-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.20	.24			
	32-39	33-50	19-29	20-40	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	39-80	40-75	13-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
Rock Outcrop---------	---	---	---	---	---	---	---	---	---	---	---	---	--	---	---
LrE:														
Louisburg------------	0-8	62-78	14-24	5-18	1.40-1.60	14.00-42.00	0.08-0.13	0.0-2.9	1.0-3.0	.17	.20	4	3	86
	8-15	60-75	18-28	5-18	1.40-1.60	14.00-42.00	0.08-0.13	0.0-2.9	0.2-0.8	.17	.24			
	15-21	45-72	21-31	7-20	1.40-1.60	14.00-42.00	0.10-0.16	0.0-2.9	0.0-0.5	.24	.24			
	21-35	45-72	21-31	7-20	1.40-1.60	14.00-42.00	0.10-0.16	0.0-2.9	0.0-0.5	.24	.24			
	35-64	45-75	13-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	64-80	---	---	---	---	1.40-4.00	0.00-0.00	0.0-0.0	0.0-0.0	---	---			

Table 17.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
Rion-----------------	0-5	65-75	14-24	5-18	1.40-1.60	14.00-42.00	0.08-0.13	0.0-2.9	1.0-3.0	.17	.20	4	3	86
	5-16	40-70	8-18	18-34	1.40-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.20	.24			
	16-32	40-70	8-18	18-34	1.40-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.20	.24			
	32-39	33-50	19-29	20-40	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	39-80	40-75	13-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
Rock Outcrop---------	---	---	---	---	---	---	---	---	---	---	---	--	---	---
MaB2:														
Madison--------------	0-4	61-71	15-25	5-20	1.45-1.65	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.24	.24	4	5	56
	4-10	40-60	15-35	25-35	1.30-1.40	4.00-14.00	0.12-0.16	0.0-2.9	0.0-0.5	.28	.32			
	10-23	24-50	15-34	30-50	1.20-1.40	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.32	.32			
	23-28	40-60	15-23	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	28-40	40-60	15-23	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	40-80	45-75	12-35	5-20	1.30-1.50	4.00-14.00	0.10-0.14	0.0-2.9	0.0-0.2	.37	.32			
Rion-----------------	0-5	65-75	14-24	5-18	1.40-1.60	14.00-42.00	0.08-0.13	0.0-2.9	1.0-3.0	.17	.20	5	3	86
	5-16	40-70	8-18	18-34	1.40-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.20	.24			
	16-32	40-70	8-18	18-34	1.40-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.20	.24			
	32-39	33-50	19-29	20-40	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	39-80	40-75	13-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
MaD2:														
Madison--------------	0-4	61-71	15-25	5-20	1.45-1.65	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.24	.24	4	5	56
	4-10	40-60	15-35	25-35	1.30-1.40	4.00-14.00	0.12-0.16	0.0-2.9	0.0-0.5	.28	.32			
	10-23	24-50	15-34	30-50	1.20-1.40	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.32	.32			
	23-28	40-60	15-23	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	28-40	40-60	15-23	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	40-80	45-75	12-35	5-20	1.30-1.50	4.00-14.00	0.10-0.14	0.0-2.9	0.0-0.2	.37	.32			
MdE2:														
Madison--------------	0-4	61-71	15-25	5-20	1.45-1.65	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.24	.24	4	5	56
	4-10	40-60	15-35	25-35	1.30-1.40	4.00-14.00	0.12-0.16	0.0-2.9	0.0-0.5	.28	.32			
	10-23	24-50	15-34	30-50	1.20-1.40	4.00-14.00	0.13-0.18	0.0-2.9	0.0-0.5	.32	.32			
	23-28	40-60	15-23	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	28-40	40-60	15-23	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	40-80	45-75	12-35	5-20	1.30-1.50	4.00-14.00	0.10-0.14	0.0-2.9	0.0-0.2	.37	.32			
Louisa---------------	0-3	40-69	17-40	10-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.0	.24	.24	2	3	86
	3-10	35-50	20-43	10-35	1.35-1.55	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.24	.28			
	10-17	40-60	18-32	10-35	1.35-1.55	14.00-42.00	0.10-0.15	0.0-2.9	0.0-0.5	.24	.28			
	17-80	---	---	---	---	0.01-0.42	0.00-0.00	0.0-0.0	0.0-0.0	---	---			

Table 17.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
MxD2:														
Mecklenburg----------	0-4	35-45	35-45	18-25	1.40-1.60	4.00-14.00	0.12-0.14	0.0-2.9	0.5-1.5	.24	.24	4	6	48
	4-15	20-35	25-35	30-50	1.40-1.60	0.42-1.40	0.12-0.14	3.0-5.9	0.0-0.5	.28	.28			
	15-25	20-35	25-35	30-50	1.40-1.60	0.42-1.40	0.12-0.14	3.0-5.9	0.0-0.5	.28	.28			
	25-33	32-50	18-38	20-35	1.40-1.60	4.00-14.00	0.12-0.14	0.0-2.9	0.0-0.2	.32	.32			
	33-60	35-50	18-45	20-35	1.40-1.60	4.00-14.00	0.12-0.14	0.0-2.9	0.0-0.2	.32	.32			
	60-80	35-50	18-45	20-35	1.40-1.60	4.00-14.00	0.12-0.14	0.0-2.9	0.0-0.2	.32	.32			
PaC2:														
Pacolet--------------	0-4	60-72	15-25	8-20	1.00-1.50	14.00-42.00	0.06-0.10	0.0-2.9	1.0-3.0	.20	.24	4	4	86
	4-9	28-55	25-39	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	9-25	17-48	18-35	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28	.32			
	25-36	17-48	18-35	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28	.32			
	36-56	40-70	12-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	56-80	45-70	12-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
PrD2:														
Pacolet--------------	0-4	60-72	15-25	8-20	1.00-1.50	14.00-42.00	0.06-0.10	0.0-2.9	1.0-3.0	.20	.24	3	4	86
	4-9	28-55	25-39	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	9-25	17-48	18-35	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28	.32			
	25-36	17-48	18-35	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28	.32			
	36-56	40-70	12-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	56-80	45-70	12-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
Rion-----------------	0-5	65-75	14-24	5-18	1.40-1.60	14.00-42.00	0.08-0.13	0.0-2.9	1.0-3.0	.17	.20	4	3	86
	5-16	40-70	8-18	18-34	1.40-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.20	.24			
	16-32	40-70	8-18	18-34	1.40-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.20	.24			
	32-39	33-50	19-29	20-40	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	39-80	40-75	13-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
PrE2:														
Pacolet--------------	0-4	60-72	15-25	8-20	1.00-1.50	14.00-42.00	0.06-0.10	0.0-2.9	1.0-3.0	.20	.24	3	4	86
	4-9	28-55	25-39	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	9-25	17-48	18-35	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28	.32			
	25-36	17-48	18-35	35-60	1.30-1.50	4.00-14.00	0.12-0.15	0.0-2.9	0.0-0.5	.28	.32			
	36-56	40-70	12-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
	56-80	45-70	12-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			
Rion-----------------	0-5	65-75	14-24	5-18	1.40-1.60	14.00-42.00	0.08-0.13	0.0-2.9	1.0-3.0	.17	.20	4	3	86
	5-16	40-70	8-18	18-34	1.40-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.20	.24			
	16-32	40-70	8-18	18-34	1.40-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.20	.24			
	32-39	33-50	19-29	20-40	1.30-1.50	4.00-14.00	0.13-0.15	0.0-2.9	0.0-0.5	.28	.28			
	39-80	40-75	13-35	10-25	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.37			

Table 17.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Kf	T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
ShA:														
Shellbluff-----------	0-8	33-43	37-47	10-27	1.20-1.40	4.00-14.00	0.15-0.20	0.0-2.9	0.5-3.0	.28	.28	5	5	56
	8-23	4-30	40-68	18-35	1.20-1.50	4.00-14.00	0.12-0.22	0.0-2.9	0.5-2.0	.28	.28			
	23-38	4-30	40-68	18-35	1.20-1.50	4.00-14.00	0.12-0.22	0.0-2.9	0.5-2.0	.28	.28			
	38-48	4-30	40-72	18-35	1.20-1.50	4.00-14.00	0.12-0.22	0.0-2.9	0.5-2.0	.28	.28			
	48-80	50-77	7-30	10-35	1.30-1.50	4.00-42.00	0.12-0.20	0.0-2.9	0.0-0.5	.24	.24			
SpB:														
Springhill-----------	0-6	60-72	15-25	7-15	1.30-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-2.0	.20	.20	5	3	86
	6-19	55-65	10-20	18-35	1.40-1.60	4.00-14.00	0.11-0.14	0.0-2.9	0.0-0.5	.24	.24			
	19-50	55-65	10-20	18-35	1.40-1.60	4.00-14.00	0.11-0.14	0.0-2.9	0.0-0.5	.24	.24			
	50-80	68-82	3-14	5-25	1.40-1.65	14.00-42.00	0.07-0.12	0.0-2.9	0.0-0.5	.20	.20			
SwF:														
Sweetapple-----------	0-6	58-77	15-30	5-15	1.25-1.45	14.00-42.00	0.10-0.14	0.0-2.9	0.0-0.5	.28	.32	3	3	86
	6-12	58-77	15-30	5-15	1.25-1.45	14.00-42.00	0.10-0.14	0.0-2.9	0.0-0.5	.28	.32			
	12-23	58-77	15-30	5-15	1.25-1.45	14.00-42.00	0.10-0.14	0.0-2.9	0.0-0.5	.28	.32			
	23-80	---	---	---	---	0.01-0.42	0.00-0.00	---	0.0-0.0	---	---			
Mountain Park--------	0-4	60-70	15-25	8-19	1.50-1.60	4.00-14.00	0.08-0.12	0.0-2.9	0.5-2.0	.24	.24	3	3	86
	4-10	60-70	15-25	8-19	1.50-1.60	4.00-14.00	0.08-0.12	0.0-2.9	0.0-0.5	.24	.24			
	10-23	45-63	9-19	20-36	1.40-1.55	4.00-14.00	0.12-0.14	0.0-2.9	0.0-0.5	.32	.32			
	23-32	55-70	17-27	15-25	1.45-1.60	4.00-14.00	0.11-0.13	0.0-2.9	0.0-0.5	.32	.32			
	32-46	---	---	---	1.50-1.70	0.01-42.00	0.00-0.00	0.0-0.0	0.0-0.0	.24	.24			
	46-55	62-74	13-27	8-16	1.50-1.60	4.00-14.00	0.09-0.11	0.0-2.9	0.0-0.5	.32	.32			
	55-80	---	---	---	1.50-1.70	0.01-0.42	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
TaD2:														
Tallapoosa-----------	0-4	39-45	36-42	7-25	1.30-1.60	4.00-14.00	0.11-0.20	0.0-2.9	0.5-2.0	.24	.28	2	8	0
	4-8	39-45	36-42	7-25	1.30-1.60	4.00-14.00	0.11-0.20	0.0-2.9	0.2-1.0	.24	.28			
	8-12	28-33	37-43	18-34	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	12-16	28-33	37-43	18-34	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	16-80	---	---	---	---	0.01-0.42	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
Badin----------------	0-5	35-45	35-45	10-27	1.20-1.45	4.00-14.00	0.16-0.20	0.0-2.9	1.0-3.0	.37	.37	3	5	56
	5-14	15-30	26-50	35-55	1.30-1.50	0.42-1.40	0.14-0.19	3.0-5.9	0.0-0.5	.24	.28			
	14-20	18-30	26-50	35-55	1.30-1.50	0.42-1.40	0.14-0.19	3.0-5.9	0.0-0.5	.24	.28			
	20-28	27-35	35-42	18-34	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	28-80	---	---	---	---	0.00-3.00	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
Fruithurst-----------	0-3	40-50	38-48	7-17	1.35-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.5-2.0	.24	.28	3	3	86
	3-7	33-43	33-43	18-35	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	7-21	25-35	35-45	18-35	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	21-30	26-32	52-70	10-20	1.20-1.40	4.23-14.11	0.16-0.22	0.0-2.9	0.0-0.5	.37	.37			
	30-80	---	---	---	---	0.01-0.42	0.00-0.00	0.0-0.0	0.0-0.0	---	---			

Table 17.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi- bility group	Wind erodi- bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
TfE2:														
Tallapoosa-----------	0-4	39-45	36-42	7-25	1.30-1.60	4.00-14.00	0.11-0.20	0.0-2.9	0.5-2.0	.24	.28	2	8	86
	4-8	39-45	36-42	7-25	1.30-1.60	4.00-14.00	0.11-0.20	0.0-2.9	0.2-1.0	.24	.28			
	8-12	28-33	37-43	18-34	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	12-16	28-33	37-43	18-34	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	16-80	---	---	---	---	0.01-0.42	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
Fruithurst-----------	0-3	40-50	38-48	7-17	1.35-1.60	4.00-14.00	0.12-0.18	0.0-2.9	0.5-2.0	.24	.28	3	3	86
	3-7	33-43	33-43	18-35	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	7-21	25-35	35-45	18-35	1.30-1.45	4.00-14.00	0.15-0.20	0.0-2.9	0.0-0.5	.32	.32			
	21-30	26-32	52-70	10-20	1.20-1.40	4.23-14.11	0.16-0.22	0.0-2.9	0.0-0.5	.37	.37			
	30-80	---	---	---	---	0.01-0.42	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
ToA:														
Toccoa---------------	0-4	66-72	18-24	2-15	1.40-1.55	14.00-42.00	0.09-0.12	0.0-2.9	1.0-2.0	.10	.10	4	3	86
	4-28	40-69	20-35	2-19	1.40-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-1.0	.20	.20			
	28-36	40-69	20-35	2-19	1.40-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-1.0	.20	.20			
	36-43	29-60	30-58	7-17	1.35-1.45	14.00-42.00	0.09-0.20	0.0-2.9	1.0-2.0	.24	.24			
	43-80	40-69	20-35	2-19	1.40-1.50	14.00-42.00	0.09-0.12	0.0-2.9	0.5-1.0	.20	.20			
TwD:														
Townley--------------	0-4	52-65	20-35	12-22	1.20-1.50	4.00-14.00	0.14-0.18	0.0-2.9	0.5-2.0	.28	.32	3	5	56
	4-8	58-72	10-30	7-20	1.25-1.60	4.00-14.00	0.10-0.15	0.0-2.9	0.5-2.0	.28	.28			
	8-22	13-34	20-45	35-60	1.30-1.60	0.42-1.41	0.12-0.18	3.0-5.9	0.0-0.5	.28	.32			
	22-26	4-16	50-62	37-47	1.40-1.50	1.41-4.23	0.10-0.14	3.0-5.9	0.0-0.5	.28	.28			
	26-80	---	---	---	---	0.01-0.42	0.00-0.00	---	0.0-0.0	---	---			
TxE:														
Townley--------------	0-4	52-65	20-35	12-22	1.20-1.50	4.00-14.00	0.14-0.18	0.0-2.9	0.5-2.0	.28	.32	3	5	56
	4-8	58-72	10-30	7-20	1.25-1.60	4.00-14.00	0.10-0.15	0.0-2.9	0.5-2.0	.28	.28			
	8-22	13-34	20-45	35-60	1.30-1.60	0.42-1.41	0.12-0.18	3.0-5.9	0.0-0.5	.28	.32			
	22-26	4-16	50-62	37-47	1.40-1.50	1.41-4.23	0.10-0.14	3.0-5.9	0.0-0.5	.28	.28			
	26-80	---	---	---	---	0.01-0.42	0.00-0.00	---	0.0-0.0	---	---			
Montevallo-----------	0-4	65-74	14-17	9-25	1.30-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.5-3.0	.24	.28	2	5	56
	4-8	65-74	14-17	9-25	1.30-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.5-3.0	.24	.28			
	8-19	6-30	45-65	18-35	1.50-1.70	4.00-14.00	0.10-0.18	0.0-2.9	0.0-0.5	.17	.28			
	19-80	---	---	---	---	0.42-1.40	0.00-0.00	---	0.0-0.0	---	---			

Table 17.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors Kw	Erosion factors Kf	Erosion factors T	Wind erodi-bility group	Wind erodi-bility index
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
WeC2:														
Wedowee--------------	0-2	58-75	10-28	5-20	1.25-1.60	14.00-42.00	0.10-0.18	0.0-2.9	0.5-3.0	.20	.24	4	3	86
	2-5	40-75	10-28	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.0	.24	.24			
	5-15	38-52	7-23	35-50	1.30-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.28	.28			
	15-28	38-52	7-23	35-50	1.30-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.28	.28			
	28-34	50-65	7-35	14-30	1.30-1.55	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.28	.28			
	34-80	55-70	7-27	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.28			
WeD2:														
Wedowee--------------	0-2	58-75	10-28	5-20	1.25-1.60	14.00-42.00	0.10-0.18	0.0-2.9	0.5-3.0	.20	.24	4	3	86
	2-5	40-75	10-28	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.0	.24	.24			
	5-15	38-52	7-23	35-50	1.30-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.28	.28			
	15-28	38-52	7-23	35-50	1.30-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.28	.28			
	28-34	50-65	7-35	14-30	1.30-1.55	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.28	.28			
	34-80	55-70	7-27	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.28			
WfE:														
Wedowee--------------	0-2	58-75	10-28	5-20	1.25-1.60	14.00-42.00	0.10-0.18	0.0-2.9	0.5-3.0	.20	.24	4	3	86
	2-5	40-75	10-28	5-20	1.30-1.50	14.00-42.00	0.12-0.14	0.0-2.9	0.5-1.0	.24	.24			
	5-15	38-52	7-23	35-50	1.30-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.28	.28			
	15-28	38-52	7-23	35-50	1.30-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.28	.28			
	28-34	50-65	7-35	14-30	1.30-1.55	4.00-14.00	0.12-0.18	0.0-2.9	0.0-0.5	.28	.28			
	34-80	55-70	7-27	15-30	1.20-1.50	4.00-14.00	0.08-0.15	0.0-2.9	0.0-0.5	.28	.28			
WhA:														
Wehadkee-------------	0-4	20-35	52-70	10-20	1.20-1.40	4.23-14.11	0.16-0.22	0.0-2.9	2.0-4.0	.37	.37	5	3	86
	4-20	18-50	20-55	15-35	1.20-1.40	4.23-14.11	0.16-0.20	0.0-2.9	0.0-1.0	.20	.20			
	20-40	40-72	15-55	10-35	1.20-1.50	4.23-14.11	0.10-0.14	0.0-2.9	0.0-0.5	.20	.20			
	40-80	40-72	15-55	10-35	1.20-1.50	4.23-14.11	0.10-0.14	0.0-2.9	0.0-0.5	.20	.20			
WkB:														
Wickham--------------	0-10	55-75	15-35	8-18	1.45-1.65	14.00-42.00	0.11-0.16	0.0-2.9	0.5-2.0	.24	.24	5	3	86
	10-20	45-72	10-35	18-30	1.30-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.2-1.0	.24	.24			
	20-43	45-72	10-35	18-30	1.30-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.2-1.0	.24	.24			
	43-58	55-75	10-28	10-35	1.30-1.50	4.00-14.00	0.12-0.17	0.0-2.9	0.2-1.0	.24	.24			
	58-74	66-72	18-24	2-15	1.40-1.55	14.00-42.00	0.09-0.12	0.0-2.9	0.2-1.0	.10	.10			
	74-80	---	---	3-12	1.60-1.75	42.00-141.00	0.03-0.07	0.0-2.9	0.0-0.5	.10	.10			
WnE:														
Wynott---------------	0-8	60-70	13-23	7-27	1.20-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.5-2.0	.32	.37	3	5	56
	8-12	60-70	13-23	7-27	1.20-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.2-1.0	.32	.37			
	12-23	17-27	22-45	35-65	1.20-1.50	0.42-1.40	0.15-0.17	6.0-8.9	0.0-0.5	.28	.28			
	23-32	17-27	22-45	35-65	1.20-1.50	0.42-1.40	0.15-0.17	6.0-8.9	0.0-0.5	.28	.28			
	32-38	34-50	15-35	20-45	1.30-1.50	1.40-4.00	0.15-0.20	0.0-2.9	0.0-0.5	.28	.28			
	38-80	---	---	---	---	0.00-14.00	0.00-0.00	0.0-0.0	0.0-0.0	---	---			

Table 17.—Physical Soil Properties—Continued

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic conductivity	Available water capacity	Linear extensi-bility	Organic matter	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
										Kw	Kf	T		
	In	Pct	Pct	Pct	g/cc	um/sec	In/in	Pct	Pct					
Wilkes---------------	0-4	---	---	5-20	1.30-1.50	14.00-42.00	0.10-0.14	0.0-2.9	0.5-2.0	.17	.24	2	8	0
	4-9	---	---	5-20	1.30-1.50	14.00-42.00	0.10-0.14	0.0-2.9	0.2-1.0	.17	.24			
	9-15	---	---	34-60	1.40-1.60	1.40-4.00	0.15-0.20	3.0-5.9	0.0-0.5	.32	.32			
	15-80	---	---	---	---	0.00-3.00	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
WyD:														
Wynott---------------	0-8	60-70	13-23	7-27	1.20-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.5-2.0	.32	.37	3	5	56
	8-12	60-70	13-23	7-27	1.20-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.2-1.0	.32	.37			
	12-23	17-27	22-45	35-65	1.20-1.50	0.42-1.40	0.15-0.17	6.0-8.9	0.0-0.5	.28	.28			
	23-32	17-27	22-45	35-65	1.20-1.50	0.42-1.40	0.15-0.17	6.0-8.9	0.0-0.5	.28	.28			
	32-38	34-50	15-35	20-45	1.30-1.50	1.40-4.00	0.15-0.20	0.0-2.9	0.0-0.5	.28	.28			
	38-80	---	---	---	---	0.00-14.00	0.00-0.00	0.0-0.0	0.0-0.0	---	---			
Winnsboro------------	0-6	60-70	18-30	5-20	1.30-1.50	14.00-42.00	0.11-0.15	0.0-2.9	0.5-2.0	.17	.24	4	3	86
	6-12	60-70	10-21	12-27	1.20-1.50	4.00-14.00	0.12-0.18	0.0-2.9	0.2-1.0	.32	.37			
	12-32	17-30	20-42	35-65	1.20-1.50	0.42-1.40	0.15-0.17	6.0-8.9	0.0-0.5	.28	.28			
	32-40	28-50	15-40	20-45	1.30-1.50	1.40-4.00	0.15-0.20	0.0-2.9	0.0-0.5	.28	.28			
	40-56	43-65	7-30	20-45	1.30-1.50	1.40-4.00	0.15-0.20	0.0-2.9	0.0-0.5	.28	.28			
	56-80	---	---	---	---	0.00-2.00	0.00-0.00	0.0-0.0	0.0-0.0	---	---			

Table 18.—Chemical Soil Properties

(Absence of an entry indicates that data were not estimated.)

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
AcB:				
Alcovy	0-6	---	1.6-3.7	4.5-5.5
	6-21	---	2.4-4.5	4.5-5.5
	21-28	---	2.4-4.5	4.5-5.5
	28-36	---	4.0-6.5	4.5-5.5
	36-55	---	3.0-5.4	4.5-5.5
	55-80	---	1.7-6.5	4.5-6.0
AlC2:				
Allen	0-3	---	1.5-4.9	4.5-5.7
	3-7	---	4.1-8.4	4.5-5.7
	7-18	---	4.5-8.4	4.5-5.7
	18-36	---	4.5-8.4	4.5-5.7
	36-80	---	5.1-8.4	4.5-5.7
AtB:				
Altavista	0-7	---	0.8-2.9	4.5-6.0
	7-11	---	1.9-8.4	4.5-6.0
	11-27	---	3.5-8.4	4.5-6.0
	27-40	---	3.5-8.4	4.5-6.0
	40-52	---	1.9-8.4	4.5-6.0
	52-80	---	1.9-8.4	4.5-6.0
BdB2:				
Badin	0-5	---	1.7-5.1	4.5-5.5
	5-14	---	2.0-14	4.5-5.5
	14-20	---	1.8-14	4.5-5.5
	20-28	---	1.5-8.2	4.5-5.5
	28-80	---	---	---
Tatum	0-5	---	2.1-5.3	4.5-5.5
	5-10	---	2.2-5.5	4.5-5.5
	10-15	---	5.9-15	4.5-5.5
	15-31	---	6.9-15	4.5-5.5
	31-42	---	5.9-15	4.5-5.5
	42-80	---	---	---
Tallapoosa	0-4	---	1.2-4.9	4.5-6.0
	4-8	---	2.9-16	4.5-6.0
	8-12	---	3.5-8.2	4.5-6.0
	12-16	---	3.5-8.2	4.5-6.0
	16-80	---	---	---
BfC:				
Badin	0-5	---	1.7-5.1	4.5-5.5
	5-14	---	2.0-14	4.5-5.5
	14-20	---	1.8-14	4.5-5.5
	20-28	---	1.5-8.2	4.5-5.5
	28-80	---	---	---
Tallapoosa	0-4	---	1.2-4.9	4.5-6.0
	4-8	---	2.9-16	4.5-6.0
	8-12	---	3.5-8.2	4.5-6.0
	12-16	---	3.5-8.2	4.5-6.0
	16-80	---	---	---

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
Fruithurst	0-3	---	8.0-16	4.3-5.5
	3-7	---	3.5-8.4	4.5-5.5
	7-21	---	3.5-8.4	4.5-5.5
	21-30	---	2.0-8.0	4.5-6.5
	30-80	---	---	---
BmD2:				
Bethlehem	0-4	---	1.4-4.8	4.5-6.0
	4-12	---	4.0-8.5	4.5-6.0
	12-24	---	4.0-8.5	4.5-6.0
	24-30	---	4.0-8.5	4.5-6.0
	30-80	---	---	---
Madison	0-4	---	1.2-4.1	4.5-5.5
	4-10	---	2.9-6.6	4.5-5.5
	10-23	---	3.2-7.9	4.5-5.5
	23-28	---	2.2-5.0	4.5-5.5
	28-40	---	2.2-5.0	4.5-5.5
	40-80	---	1.1-4.8	4.5-5.5
CeB2:				
Cecil	0-4	---	1.6-4.5	4.5-6.0
	4-12	---	3.4-7.8	4.5-5.5
	12-39	---	3.8-7.4	4.5-5.5
	39-50	---	3.0-6.3	4.5-5.5
	50-64	---	3.0-6.3	4.5-5.5
	64-80	---	1.7-5.5	4.5-5.5
CeC2:				
Cecil	0-4	---	1.6-4.5	4.5-6.0
	4-12	---	1.6-7.8	4.5-5.5
	12-39	---	3.8-7.4	4.5-5.5
	39-50	---	3.0-6.3	4.5-5.5
	50-64	---	3.0-6.3	4.5-5.5
	64-80	---	1.7-5.0	4.5-5.5
ChA:				
Chewacla	0-2	---	4.5-11	4.5-6.5
	2-6	---	4.6-11	4.5-6.5
	6-20	---	4.9-12	4.5-6.5
	20-27	---	2.8-5.9	4.5-6.5
	27-53	---	4.9-12	4.5-6.5
	53-80	---	4.9-13	4.5-6.5
Cartecay	0-3	---	1.7-5.3	4.5-6.5
	3-13	---	1.4-3.5	4.5-6.5
	13-18	---	1.4-3.5	4.5-6.5
	18-32	---	1.4-3.5	4.5-6.5
	32-47	---	1.4-3.5	4.5-6.5
	47-80	---	0.3-3.1	4.5-6.5
Toccoa	0-4	1.1-8.2	---	4.5-6.0
	4-28	1.1-10	---	4.5-6.0
	28-36	1.1-10	---	4.5-6.0
	36-43	3.8-9.2	---	4.5-6.0
	43-80	1.1-10	---	4.5-6.0

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
DaB:				
Davidson-------------	0-5	---	2.6-6.6	4.5-6.5
	5-30	---	3.4-8.0	4.5-6.5
	30-80	---	3.4-8.0	4.5-6.5
DAM:				
Dam------------------	---	---	---	---
DdD3:				
Davidson-------------	0-5	5.0-12	---	4.5-6.5
	5-30	3.3-11	---	4.5-6.5
	30-80	3.3-11	---	4.5-6.5
DeB:				
Decatur--------------	0-6	---	2.5-10	4.5-6.0
	6-11	---	4.3-11	4.5-6.0
	11-60	---	4.3-11	4.5-6.0
	60-80	---	4.6-7.6	4.5-6.0
EnB:				
Enon-----------------	0-4	3.8-11	---	5.1-7.3
	4-12	7.6-18	---	5.1-7.3
	12-25	20-31	---	5.1-7.3
	25-50	20-31	---	5.1-7.3
	50-80	7.6-18	---	5.1-7.3
Wynott---------------	0-8	3.8-15	---	4.5-6.5
	8-12	3.7-14	---	4.5-6.5
	12-23	18-34	---	4.5-6.5
	23-32	18-34	---	4.5-6.5
	32-38	10-24	---	4.5-6.5
	38-80	---	---	---
GrD:				
Grover---------------	0-5	---	1.5-6.0	4.5-6.5
	5-23	---	1.5-5.8	4.5-6.5
	23-34	---	2.7-7.0	4.5-6.5
	34-50	---	1.7-5.3	4.5-6.5
	50-80	---	1.7-5.3	4.5-6.5
HdB:				
Hard Labor-----------	0-2	---	0.7-3.2	4.5-6.0
	2-9	---	0.7-3.2	4.5-6.0
	9-15	---	1.2-9.0	4.5-6.0
	15-45	---	2.6-6.8	4.5-6.0
	45-52	---	1.7-6.5	4.5-6.0
	52-80	---	1.7-6.5	4.5-6.0
HdC:				
Hard Labor-----------	0-2	---	0.7-3.2	4.5-6.0
	2-9	---	0.7-3.2	4.5-6.0
	9-15	---	1.2-9.0	4.5-6.0
	15-45	---	2.6-6.8	4.5-6.0
	45-52	---	1.7-6.5	4.5-6.0
	52-80	---	1.7-6.5	4.5-6.0

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
LcB:				
Locust	0-6	---	1.2-3.9	4.5-5.5
	6-12	---	3.3-4.4	4.5-5.5
	12-24	---	3.5-8.4	4.5-5.5
	24-30	---	3.5-8.4	4.5-5.5
	30-62	---	3.5-6.7	4.5-5.5
	62-80	---	1.9-7.2	4.5-5.5
LoF:				
Louisa	0-3	---	2.5-7.6	4.5-6.0
	3-10	---	1.0-8.4	4.5-6.0
	10-17	---	1.0-8.4	4.5-6.0
	17-80	---	---	---
Mountain Park	0-4	---	1.5-4.0	4.5-5.5
	4-10	---	1.5-4.0	4.5-5.5
	10-23	---	2.0-5.0	4.5-5.5
	23-32	---	2.3-4.8	4.5-5.5
	32-46	---	---	---
	46-55	---	1.4-3.8	4.5-5.5
	55-80	---	---	---
LrD:				
Louisburg	0-8	---	0.8-3.3	4.5-6.0
	8-15	---	1.7-9.6	4.5-6.0
	15-21	---	1.3-4.7	4.5-6.0
	21-35	---	1.3-4.7	4.5-6.0
	35-64	---	1.9-5.9	4.5-6.0
	64-80	---	---	---
Rion	0-5	---	0.8-3.3	4.5-6.5
	5-16	---	3.5-8.2	4.5-6.5
	16-32	---	3.5-8.2	4.5-6.5
	32-39	---	3.9-9.7	4.5-6.5
	39-80	---	1.9-5.9	4.5-6.5
Rock Outcrop	---	---	---	---
LrE:				
Louisburg	0-8	---	0.8-3.3	4.5-6.0
	8-15	---	1.7-9.6	4.5-6.0
	15-21	---	1.3-4.7	4.5-6.0
	21-35	---	1.3-4.7	4.5-6.0
	35-64	---	1.9-5.9	4.5-6.0
	64-80	---	---	---
Rion	0-5	---	0.8-3.3	4.5-6.5
	5-16	---	3.5-8.2	4.5-6.5
	16-32	---	3.5-8.2	4.5-6.5
	32-39	---	3.9-9.7	4.5-6.5
	39-80	---	1.9-5.9	4.5-6.5
Rock Outcrop	---	---	---	---

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
MaB2:				
Madison--------------	0-4	---	2.2-5.7	4.5-5.5
	4-10	---	2.0-6.6	4.5-5.5
	10-23	---	3.2-7.9	4.5-5.5
	23-28	---	2.2-5.0	4.5-5.5
	28-40	---	2.2-5.0	4.5-5.5
	40-80	---	1.1-4.8	4.5-5.5
Rion-----------------	0-5	---	0.8-3.3	4.5-6.5
	5-16	---	3.5-8.2	4.5-6.5
	16-32	---	3.5-8.2	4.5-6.5
	32-39	---	3.9-9.7	4.5-6.5
	39-80	---	1.9-5.9	4.5-6.5
MaD2:				
Madison--------------	0-4	---	2.2-5.7	4.5-5.5
	4-10	---	2.0-6.6	4.5-5.5
	10-23	---	3.2-7.9	4.5-5.5
	23-28	---	2.2-5.0	4.5-5.5
	28-40	---	2.2-5.0	4.5-5.5
	40-80	---	1.1-4.8	4.5-5.5
MdE2:				
Madison--------------	0-4	---	2.2-5.7	4.5-5.5
	4-10	---	2.0-6.6	4.5-5.5
	10-23	---	3.2-7.9	4.5-5.5
	23-28	---	2.2-5.0	4.5-5.5
	28-40	---	2.2-5.0	4.5-5.5
	40-80	---	1.1-4.8	4.5-5.5
Louisa---------------	0-3	---	2.5-7.6	4.5-6.0
	3-10	---	1.0-8.4	4.5-6.0
	10-17	---	1.0-8.4	4.5-6.0
	17-80	---	---	---
MxD2:				
Mecklenburg----------	0-4	9.6-13	---	5.0-6.5
	4-15	15-26	---	5.0-6.5
	15-25	15-26	---	5.0-6.5
	25-33	10-18	---	5.0-6.5
	33-60	10-18	---	5.0-6.5
	60-80	10-18	---	5.0-6.5
PaC2:				
Pacolet--------------	0-4	---	1.4-4.1	4.5-6.0
	4-9	---	2.5-6.4	4.5-6.0
	9-25	---	3.4-8.9	4.5-6.0
	25-36	---	3.4-8.9	4.5-6.0
	36-56	---	1.4-5.5	4.5-6.0
	56-80	---	1.4-5.5	4.5-6.0
PrD2:				
Pacolet--------------	0-4	---	1.4-4.1	4.5-6.0
	4-9	---	2.5-6.4	4.5-6.0
	9-25	---	3.4-8.9	4.5-6.0
	25-36	---	3.4-8.9	4.5-6.0
	36-56	---	1.4-5.5	4.5-6.0
	56-80	---	1.4-5.5	4.5-6.0

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
Rion	0-5	---	0.8-3.3	4.5-6.5
	5-16	---	3.5-8.2	4.5-6.5
	16-32	---	3.5-8.2	4.5-6.5
	32-39	---	3.9-9.7	4.5-6.5
	39-80	---	1.9-5.9	4.5-6.5
PrE2:				
Pacolet	0-4	---	1.4-4.1	4.5-6.0
	4-9	---	2.5-6.4	4.5-6.0
	9-25	---	3.4-8.9	4.5-6.0
	25-36	---	3.4-8.9	4.5-6.0
	36-56	---	1.4-5.5	4.5-6.0
	56-80	---	1.4-5.5	4.5-6.0
Rion	0-5	---	0.8-3.3	4.5-6.5
	5-16	---	3.5-8.2	4.5-6.5
	16-32	---	3.5-8.2	4.5-6.5
	32-39	---	3.9-9.7	4.5-6.5
	39-80	---	1.9-5.9	4.5-6.5
ShA:				
Shellbluff	0-8	5.4-15	---	4.5-6.5
	8-23	9.6-19	---	4.5-6.5
	23-38	9.6-19	---	4.5-6.5
	38-48	9.6-19	---	4.5-6.5
	48-80	5.1-18	---	4.5-6.5
SpB:				
Springhill	0-6	---	1.4-3.5	4.5-5.5
	6-19	---	2.0-5.0	4.5-5.5
	19-50	---	2.0-5.0	4.5-5.5
	50-80	---	0.5-3.5	4.5-5.5
SwF:				
Sweetapple	0-6	2.5-9.2	---	4.5-6.5
	6-12	2.5-9.2	---	4.5-6.5
	12-23	2.5-9.2	---	4.5-6.5
	23-80	---	---	---
Mountain Park	0-4	---	1.5-4.0	4.5-5.5
	4-10	---	1.5-4.0	4.5-5.5
	10-23	---	2.0-5.0	4.5-5.5
	23-32	---	2.3-4.8	4.5-5.5
	32-46	---	---	---
	46-55	---	1.4-3.8	4.5-5.5
	55-80	---	---	---
TaD2:				
Tallapoosa	0-4	---	1.2-4.9	4.5-6.0
	4-8	---	2.9-16	4.5-6.0
	8-12	---	3.5-8.2	4.5-6.0
	12-16	---	3.5-8.2	4.5-6.0
	16-80	---	---	---
Badin	0-5	---	1.7-5.1	4.5-5.5
	5-14	---	2.5-14	4.5-5.5
	14-20	---	1.7-14	4.5-5.5
	20-28	---	1.5-8.2	4.5-5.5
	28-80	---	---	---

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
Fruithurst-----------	0-3	---	8.0-16	4.3-5.5
	3-7	---	3.5-8.4	4.5-5.5
	7-21	---	3.5-8.4	4.5-5.5
	21-30	---	2.0-7.0	4.5-5.5
	30-80	---	---	---
TfE2:				
Tallapoosa-----------	0-4	---	1.2-4.9	4.5-6.0
	4-8	---	2.9-16	4.5-6.0
	8-12	---	3.5-8.2	4.5-6.0
	12-16	---	3.5-8.2	4.5-6.0
	16-80	---	---	---
Fruithurst-----------	0-3	---	8.0-16	4.3-5.5
	3-7	---	3.5-8.4	4.5-5.5
	7-21	---	3.5-8.4	4.5-5.5
	21-30	---	2.0-7.0	4.5-5.5
	30-80	---	---	---
ToA:				
Toccoa---------------	0-4	1.1-8.2	---	4.5-6.0
	4-28	1.1-10	---	4.5-6.0
	28-36	1.1-10	---	4.5-6.0
	36-43	3.8-9.2	---	4.5-6.0
	43-80	1.1-10	---	4.5-6.0
TwD:				
Townley--------------	0-4	---	2.1-4.3	3.6-6.0
	4-8	---	1.9-14	3.6-5.5
	8-22	---	6.9-15	3.6-5.5
	22-26	---	7.4-11	3.6-5.5
	26-80	---	---	---
TxE:				
Townley--------------	0-4	---	2.1-4.3	3.6-6.0
	4-8	---	1.9-14	3.6-5.5
	8-22	---	6.9-15	3.6-5.5
	22-26	---	7.4-11	3.6-5.5
	26-80	---	---	---
Montevallo-----------	0-4	---	1.0-2.9	4.5-5.7
	4-8	---	3.1-16	4.5-5.7
	8-19	---	2.3-5.0	4.5-5.5
	19-80	---	---	---
WeC2:				
Wedowee--------------	0-2	---	0.9-4.4	4.5-6.0
	2-5	---	0.9-4.4	4.5-6.0
	5-15	---	2.2-6.6	4.5-6.0
	15-28	---	2.2-6.6	4.5-6.0
	28-34	---	1.3-6.1	4.5-6.0
	34-80	---	1.3-5.4	4.5-6.0
WeD2:				
Wedowee--------------	0-2	---	0.9-4.4	4.5-6.0
	2-5	---	0.9-4.4	4.5-6.0
	5-15	---	2.2-6.6	4.5-6.0
	15-28	---	2.2-6.6	4.5-6.0
	28-34	---	1.3-6.1	4.5-6.0
	34-80	---	1.3-5.4	4.5-6.0

Table 18.—Chemical Soil Properties—Continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction
	Inches	meq/100 g	meq/100 g	pH
WfE:				
Wedowee	0-2	---	0.9-4.4	4.5-6.0
	2-5	---	0.9-4.4	4.5-6.0
	5-15	---	2.2-6.6	4.5-6.0
	15-28	---	2.2-6.6	4.5-6.0
	28-34	---	1.3-6.1	4.5-6.0
	34-80	---	1.3-5.4	4.5-6.0
WhA:				
Wehadkee	0-4	5.5-11	---	4.5-6.7
	4-20	7.6-19	---	4.5-6.7
	20-40	5.1-18	---	4.5-6.7
	40-80	5.1-18	---	4.5-6.7
WkB:				
Wickham	0-10	---	1.4-3.5	4.5-5.5
	10-20	---	3.3-6.1	4.5-5.5
	20-43	---	3.3-6.1	4.5-5.5
	43-58	---	1.8-7.2	4.5-5.5
	58-74	---	0.3-3.0	4.5-5.5
	74-80	---	0.5-2.7	4.5-5.5
WnE:				
Wynott	0-8	3.8-15	---	4.5-6.5
	8-12	3.7-14	---	4.5-6.5
	12-23	18-34	---	4.5-6.5
	23-32	18-34	---	4.5-6.5
	32-38	10-24	---	4.5-6.5
	38-80	---	---	---
Wilkes	0-4	2.0-10	---	5.1-7.8
	4-9	2.0-10	---	5.1-7.8
	9-15	5.0-31	---	5.1-7.8
	15-80	---	---	---
WyD:				
Wynott	0-8	3.8-15	---	4.5-6.5
	8-12	3.7-14	---	4.5-6.5
	12-23	18-34	---	4.5-6.5
	23-32	18-34	---	4.5-6.5
	32-38	10-24	---	4.5-6.5
	38-80	---	---	---
Winnsboro	0-6	2.7-11	---	5.1-6.5
	6-12	6.3-14	---	5.1-6.5
	12-32	18-34	---	5.1-6.5
	32-40	10-24	---	5.1-6.5
	40-56	10-24	---	5.1-6.5
	56-80	---	---	---

Table 19.—Water Features

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
AcB:										
Alcovy--------------------	C	Medium								
			Dec.-Mar.	2.0-3.0	2.5-3.0	---	---	None	---	None
			Apr.-Nov.	---	---	---	---	None	---	None
AlC2:										
Allen---------------------	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
AtB:										
Altavista-----------------	C	Very low								
			Dec.-Apr.	1.5-2.5	>6.0	---	---	None	---	Rare
			May-Nov.	---	---	---	---	None	---	Rare
BdB2:										
Badin---------------------	C	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
Tatum---------------------	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
Tallapoosa----------------	C	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
BfC:										
Badin---------------------	C	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
Tallapoosa----------------	C	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
Fruithurst----------------	C	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
BmD2:										
Bethlehem	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
Madison	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
CeB2:										
Cecil	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
CeC2:										
Cecil	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
ChA:										
Chewacla	C	Negligible								
			Jan.-Apr.	0.5-1.5	>6.0	---	---	None	Brief	Frequent
			Nov.-Dec.	0.5-1.5	>6.0	---	---	None	Brief	Frequent
Cartecay	C	Negligible								
			Jan.-Apr.	0.5-1.5	>6.0	---	---	None	Brief	Frequent
			December	0.5-1.5	>6.0	---	---	None	Brief	Frequent
Toccoa	B	Negligible								
			Dec.-Apr.	2.5-5.0	>6.0	---	---	None	Brief	Frequent
			May-Nov.	---	---	---	---	None	Brief	Frequent
DaB:										
Davidson	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
DdD3:										
Davidson	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
DeB:										
Decatur	B	Low								
			Jan.-Dec.	---	---	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
EnB:										
Enon	C	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
Wynott	C	High								
			Jan.-Dec.	---	---	---	---	None	---	None
GrD:										
Grover	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
HdB:										
Hard Labor	B	Low								
			Nov.-Apr.	2.5-5.0	4.0-5.0	---	---	None	---	None
			May.-Oct.	---	---	---	---	None	---	None
HdC:										
Hard Labor	B	Medium								
			Nov.-Apr.	2.5-5.0	4.0-5.0	---	---	None	---	None
			May-Oct.	---	---	---	---	None	---	None
LcB:										
Locust	C	Low								
			Dec.-Feb.	1.5-2.0	1.5-2.0	---	---	None	---	None
			Mar.-Nov.	---	---	---	---	None	---	None
LoF:										
Louisa	B	Very high								
			Jan.-Dec.	---	---	---	---	None	---	None
Mountain Park	B	High								
			Jan.-Dec.	---	---	---	---	None	---	None
LrD:										
Louisburg	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
Rion	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
Rock Outcrop	---	Very high								
			Jan-Dec	---	---	---	---	None	---	---
LrE:										
Louisburg	B	High								
			Jan.-Dec.	---	---	---	---	None	---	None
Rion	B	High								
			Jan.-Dec.	---	---	---	---	None	---	None
Rock Outcrop	---	Very high								
			Jan.-Dec.	---	---	---	---	None	---	---
MaB2:										
Madison	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
Rion	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
MaD2:										
Madison	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
MdE2:										
Madison	B	High								
			Jan.-Dec.	---	---	---	---	None	---	None
Louisa	B	High								
			Jan.-Dec.	---	---	---	---	None	---	None
MxD2:										
Mecklenburg	C	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
PaC2:										
Pacolet	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydrologic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
PrD2:										
Pacolet	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
Rion	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
PrE2:										
Pacolet	B	High								
			Jan.-Dec.	---	---	---	---	None	---	None
Rion	B	High								
			Jan.-Dec.	---	---	---	---	None	---	None
ShA:										
Shellbluff	B	Very low								
			Jan.Apr.	3.0-5.0	>6.0	---	---	None	Brief	Occasional
			December	3.0-5.0	>6.0	---	---	None	Brief	Occasional
SpB:										
Springhill	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
SwF:										
Sweetapple	B	High								
			Jan.-Dec.	---	---	---	---	None	---	None
Mountain Park	B	High								
			Jan.-Dec.	---	---	---	---	None	---	None
TaD2:										
Tallapoosa	C	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
Badin	C	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
Fruithurst	C	High								
			Jan.-Dec.	---	---	---	---	None	---	None

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro-logic group	Surface runoff	Month	Water table: Upper limit	Water table: Lower limit	Ponding: Surface water depth	Ponding: Duration	Ponding: Frequency	Flooding: Duration	Flooding: Frequency
				Ft	Ft	Ft				
TfE2:										
Tallapoosa----------------	C	Very high								
			Jan.-Dec.	---	---	---	---	None	---	None
Fruithurst----------------	C	Very high								
			Jan.-Dec.	---	---	---	---	None	---	None
ToA:										
Toccoa--------------------	B	Very low								
			Dec.-Apr.	2.5-5.0	>6.0	---	---	None	Brief	Occasional
			May-Nov.	---	---	---	---	None	Brief	Occasional
TwD:										
Townley-------------------	C	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
TxE:										
Townley-------------------	C	High								
			Jan.-Dec.	---	---	---	---	None	---	None
Montevallo----------------	D	High								
			Jan.-Dec.	---	---	---	---	None	---	None
WeC2:										
Wedowee-------------------	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	None
WeD2:										
Wedowee-------------------	B	High								
			Jan.-Dec.	---	---	---	---	None	---	None
WfE:										
Wedowee-------------------	B	High								
			Jan.-Dec.	---	---	---	---	None	---	None
WhA:										
Wehadkee------------------	D	Negligible								
			Jan.-June	0.0-1.0	>6.0	---	---	None	Brief	Frequent
			Nov.-Dec.	0.0-1.0	>6.0	---	---	None	Brief	Frequent

Table 19.—Water Features—Continued

Map symbol and soil name	Hydro- logic group	Surface runoff	Month	Water table		Ponding			Flooding	
				Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
				Ft	Ft	Ft				
WkB:										
Wickham-------------------	B	Medium								
			Jan.-Dec.	---	---	---	---	None	---	Rare
WnE:										
Wynott--------------------	C	High								
			Jan.-Dec.	---	---	---	---	None	---	None
Wilkes--------------------	C	Very high								
			Jan.-Dec.	---	---	---	---	None	---	None
WyD:										
Wynott--------------------	C	High								
			Jan.-Dec.	---	---	---	---	None	---	None
Winnsboro-----------------	C	High								
			Jan.-Dec.	---	---	---	---	None	---	None

Table 20.—Soil Features

(See text for definitions of terms used in this table. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Thickness	Restrictive layer: Hardness	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In	In				
AcB:							
Alcovy	Fragipan	20-36	10-30	Noncemented	None	Moderate	High
AlC2:							
Allen	---	---	---	---	None	Low	Moderate
AtB:							
Altavista	---	---	---	---	None	Moderate	Moderate
BdB2:							
Badin	Paralithic bedrock	20-40	20-40	Moderately cemented	None	High	High
Tatum	Paralithic bedrock	40-60	22-40	Moderately cemented	None	High	High
Tallapoosa	Paralithic bedrock	10-20	40-50	Moderately cemented	None	Low	High
BfC:							
Badin	Paralithic bedrock	20-40	20-40	Moderately cemented	None	High	High
Tallapoosa	Paralithic bedrock	10-20	40-50	Moderately cemented	None	Low	High
Fruithurst	Paralithic bedrock	20-40	20-40	Moderately cemented	None	Low	High
BmD2:							
Bethlehem	Paralithic bedrock	20-40	40-60	Weakly cemented	Moderate	Moderate	High
Madison	---	---	---	---	None	High	Moderate
CeB2:							
Cecil	---	---	---	---	None	High	High

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Thickness	Restrictive layer: Hardness	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In	In				
CeC2:							
Cecil	---	---	---	---	None	High	High
ChA:							
Chewacla	---	---	---	---	None	High	Moderate
Cartecay	---	---	---	---	None	Low	Moderate
Toccoa	---	---	---	---	None	Low	Moderate
DaB:							
Davidson	---	---	---	---	None	High	Moderate
DAM:							
Dam	---	---	---	---	---	---	---
DdD3:							
Davidson	---	---	---	---	None	High	Moderate
DeB:							
Decatur	---	---	---	---	None	High	Moderate
EnB:							
Enon	---	---	---	---	None	High	Low
Wynott	Paralithic bedrock	20-40	20-40	Moderately cemented	None	High	Moderate
GrD:							
Grover	---	---	---	---	None	Moderate	Moderate
HdB:							
Hard Labor	---	---	---	---	None	High	High
HdC:							
Hard Labor	---	---	---	---	None	High	High
LcB:							
Locust	Fragipan	16-30	50-64	Noncemented	None	Moderate	High

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Thickness	Restrictive layer: Hardness	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In	In				
LoF:							
Louisa	Paralithic bedrock	10-20	40-50	Moderately cemented	None	Low	Moderate
Mountain Park	Paralithic bedrock	20-40	40-50	Moderately cemented	None	Moderate	Moderate
LrD:							
Louisburg	Paralithic bedrock	60-70	20-40	Weakly cemented	None	Low	Moderate
Rion	---	---	---	---	None	Moderate	High
Rock Outcrop	Lithic bedrock	0-0	---	Indurated	---	---	---
LrE:							
Louisburg	Paralithic bedrock	60-70	20-40	Weakly cemented	None	Low	Moderate
Rion	---	---	---	---	None	Moderate	High
Rock Outcrop	Lithic bedrock	0-0	---	Indurated	---	---	---
MaB2:							
Madison	---	---	---	---	None	High	Moderate
Rion	---	---	---	---	None	Moderate	High
MaD2:							
Madison	---	---	---	---	None	High	Moderate
MdE2:							
Madison	---	---	---	---	None	High	Moderate
Louisa	Paralithic bedrock	10-20	40-50	Moderately cemented	None	Low	Moderate
MxD2:							
Mecklenburg	---	---	---	---	None	High	Moderate
PaC2:							
Pacolet	---	---	---	---	None	High	High

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Thickness	Restrictive layer: Hardness	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In	In				
PrD2:							
Pacolet	---	---	---	---	None	High	High
Rion	---	---	---	---	None	Moderate	Moderate
PrE2:							
Pacolet	---	---	---	---	None	High	High
Rion	---	---	---	---	None	Moderate	Moderate
ShA:							
Shellbluff	---	---	---	---	None	Moderate	Moderate
SpB:							
Springhill	---	---	---	---	None	Moderate	Moderate
SwF:							
Sweetapple	Paralithic bedrock	24-50	40-50	Moderately cemented	None	Low	Moderate
Mountain Park	Paralithic bedrock	20-40	40-50	Moderately cemented	None	Moderate	Moderate
TaD2:							
Tallapoosa	Paralithic bedrock	10-20	40-50	Moderately cemented	None	Low	High
Badin	Paralithic bedrock	20-40	20-40	Moderately cemented	None	High	High
Fruithurst	Paralithic bedrock	20-40	20-40	Moderately cemented	None	Low	High
TfE2:							
Tallapoosa	Paralithic bedrock	10-20	40-50	Moderately cemented	None	Low	High
Fruithurst	Paralithic bedrock	20-40	20-40	Moderately cemented	None	Low	High
ToA:							
Toccoa	---	---	---	---	None	Low	Moderate

Table 20.—Soil Features—Continued

Map symbol and soil name	Restrictive layer: Kind	Restrictive layer: Depth to top	Restrictive layer: Thickness	Restrictive layer: Hardness	Potential for frost action	Risk of corrosion: Uncoated steel	Risk of corrosion: Concrete
		In	In				
TwD:							
Townley	Paralithic bedrock	20-40	40-60	Moderately cemented	None	Moderate	High
TxE:							
Townley	Paralithic bedrock	20-40	40-60	Moderately cemented	None	Moderate	High
Montevallo	Paralithic bedrock	10-20	60-70	Weakly cemented	None	Moderate	Moderate
WeC2:							
Wedowee	---	---	---	---	None	Moderate	High
WeD2:							
Wedowee	---	---	---	---	None	Moderate	High
WfE:							
Wedowee	---	---	---	---	None	Moderate	High
WhA:							
Wehadkee	---	---	---	---	None	High	Moderate
WkB:							
Wickham	---	---	---	---	None	Moderate	High
WnE:							
Wynott	Paralithic bedrock	20-40	20-40	Moderately cemented	None	High	Moderate
Wilkes	Paralithic bedrock	10-20	40-50	Moderately cemented	None	Moderate	Moderate
WyD:							
Wynott	Paralithic bedrock	20-40	20-40	Moderately cemented	None	High	Moderate
Winnsboro	Paralithic bedrock	40-60	12-32	Moderately cemented	None	High	Low

Table 21.—Taxonomic Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series.)

Soil name	Family or higher taxonomic class
Alcovy	Fine-loamy, siliceous, thermic Oxyaquic Kanhapludults
Allen	Fine-loamy, siliceous, semiactive, thermic Typic Paleudults
Altavista	Fine-loamy, mixed, semiactive, thermic Aquic Hapludults
Badin	Fine, mixed, semiactive, thermic Typic Hapludults
Bethlehem	Fine, kaolinitic, thermic Typic Kanhapludults
Cartecay	Coarse-loamy, mixed, semiactive, nonacid, thermic Aquic Udifluvents
Cecil	Fine, kaolinitic, thermic Typic Kanhapludults
Chewacla	Fine-loamy, mixed, active, thermic Fluvaquentic Dystrudepts
Davidson	Fine, kaolinitic, thermic Rhodic Kandiudults
Decatur	Fine, kaolinitic, thermic Rhodic Paleudults
Enon	Fine, mixed, active, thermic Ultic Hapludalfs
Fruithurst	Fine-loamy, mixed, semiactive, thermic Typic Hapludults
Grover	Fine-loamy, micaceous, thermic Typic Hapludults
Hard Labor	Fine, kaolinitic, thermic Oxyaquic Kanhapludults
Locust	Fine-loamy, mixed, semiactive, thermic Glossic Fragiudults
Louisa	Loamy, micaceous, thermic, shallow Typic Dystrudepts
Louisburg	Coarse-loamy, mixed, semiactive, thermic Typic Hapludults
Madison	Fine, kaolinitic, thermic Typic Kanhapludults
Mecklenburg	Fine, mixed, active, thermic Ultic Hapludalfs
Montevallo	Loamy-skeletal, mixed, subactive, thermic, shallow Typic Dystrudepts
Mountain Park	Fine-loamy, micaceous, thermic Typic Hapludults
Pacolet	Fine, kaolinitic, thermic Typic Kanhapludults
Rion	Fine-loamy, mixed, semiactive, thermic Typic Hapludults
Shellbluff	Fine-silty, mixed, active, thermic Oxyaquic Dystrudepts
Springhill	Fine-loamy, kaolinitic, thermic Typic Kanhapludults
Sweetapple	Coarse-loamy, micaceous, thermic Typic Dystrudepts
Tallapoosa	Loamy, mixed, semiactive, thermic, shallow Typic Hapludults
Tatum	Fine, mixed, semiactive, thermic Typic Hapludults
Toccoa	Coarse-loamy, mixed, active, nonacid, thermic Typic Udifluvents
Townley	Fine, mixed, semiactive, thermic Typic Hapludults
Wedowee	Fine, kaolinitic, thermic Typic Kanhapludults
Wehadkee	Fine-loamy, mixed, active, nonacid, thermic Fluvaquentic Endoaquepts
Wickham	Fine-loamy, mixed, semiactive, thermic Typic Hapludults
Wilkes	Loamy, mixed, active, thermic, shallow Typic Hapludalfs
Winnsboro	Fine, mixed, active, thermic Typic Hapludalfs
Wynott	Fine, mixed, active, thermic Typic Hapludalfs

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